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By-Reed, Bob H.; Harper, William A.

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Participants in an airborne seminar were teams of individuals from sixteen institutions engaged in the early stages of planning and design. Novel and exciting features of each of the nineteen institutions visited during the "fly-in" were noted. A brief summary of the unique architectural features and facilities in each institution is given, some highlights being high-rise facilities, a specialized auditorium with modeling ramps, computer equipment, flexible facilities, an exposed concrete interior, brick construction, honeycomb design, study carrels distributed throughout corridors, an airwell, a courtyard-effect lounge, a converted department store college, an automatic library system, an open library community service center, and rooftop recreational spaces. (HH)

THE COLLEGE FACILITIES THING

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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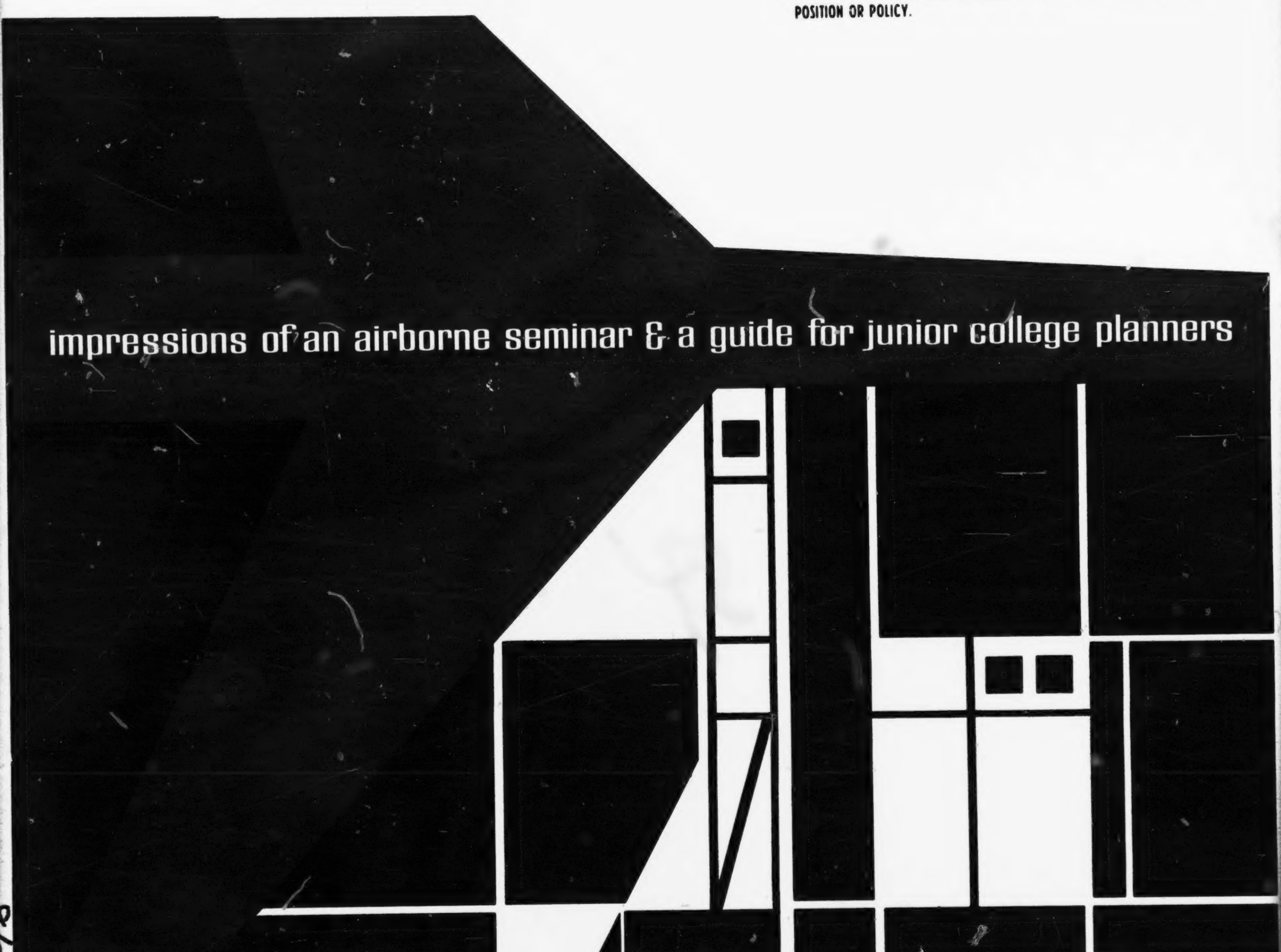

impressions of an airborne seminar & a guide for junior college planners

BY BOB H. REED AND WILLIAM A. HARPER

Bob H. Reed, formerly director of facilities information for AAJC, was in charge of the tour; William A. Harper, director of public relations for AAJC, was assigned as a reporter for the program.

Background

Planners of the scores of new community junior colleges that will be going up in the next few years have an opportunity to profit from the work of others. Institutions that are adding to or renewing existing facilities can also benefit from the experiences of colleges and universities which have had the course. While it is unlikely that the designers of any new college would duplicate the campus of another, they can take advantage of fresh and workable ideas that have been built into some of the country's outstanding educational complexes.

With this notion in mind, as well as a general concern for providing assistance in facilities planning to new community junior colleges, the American Association of Junior Colleges in the summer of 1967 conducted its "airborne planning seminar for new junior colleges." The tour was supported by a grant from Educational Facilities Laboratories. E.F.L. has pioneered the cross-country tour idea for college planners.

The AAJC fly-in was somewhat different from previous tours in that it brought together teams of individuals from sixteen institutions that were in the early stages of planning and design. Each team consisted of a college administrator, a member of the board of directors of the college, and a representative of the architectural firm engaged in designing the campus. Thus, key members of the planning team could compare notes and ideas on the spot.

The schedule called for visits to nineteen college and university campuses—and the School Planning Laboratory at Stanford University (a joint project of Stanford and the Department of Architecture of the University of California, Berkeley, supported by E.F.L.). There were two unscheduled stops, one at a suburban shopping center in Dallas, Texas, and the other at the "instant" campus of Cypress College near Los Angeles. Some of the tour participants felt that the shopping center had some of the facilities characteristics that ought to be found in a good community college.

Seminar participants came from a variety of situations—small towns, urban centers, and suburban locations. The schedule included visits to institutions that represented design and planning problems relevant to the varied interests of the members of the tour.

It is difficult to tell what impact the seminar will have on the planning that will be taking place in the communities represented by the participants. Certainly there was rare enthusiasm, much note-taking, and many brainstorming sessions as the administrators, architects, and board members attempted to analyze what they had observed at the end of each day. At least one participant stayed up most of one night to sketch out a plan for his new college.

The airborne seminar was an outgrowth of a national facilities information project of the American Association of Junior Colleges. The project, also supported by Educational Facilities Laboratories, was established as a service to the many new institutions that are being established, as well as for existing colleges that are engaged in facilities expansion and renovation.

While the airborne tour is history, the impressions and facts gained from the seminar may be of assistance not only to those who participated in the activity but, hopefully, to planners of other new colleges as well. What follows is an effort on the part of the Association to record some of the impressions, observations, and facts about the institutions that were visited. Perhaps this report will serve as a guide for others interested in touring college and university facilities.

Edmund J. Gleazer, Jr.
Executive Director, AAJC

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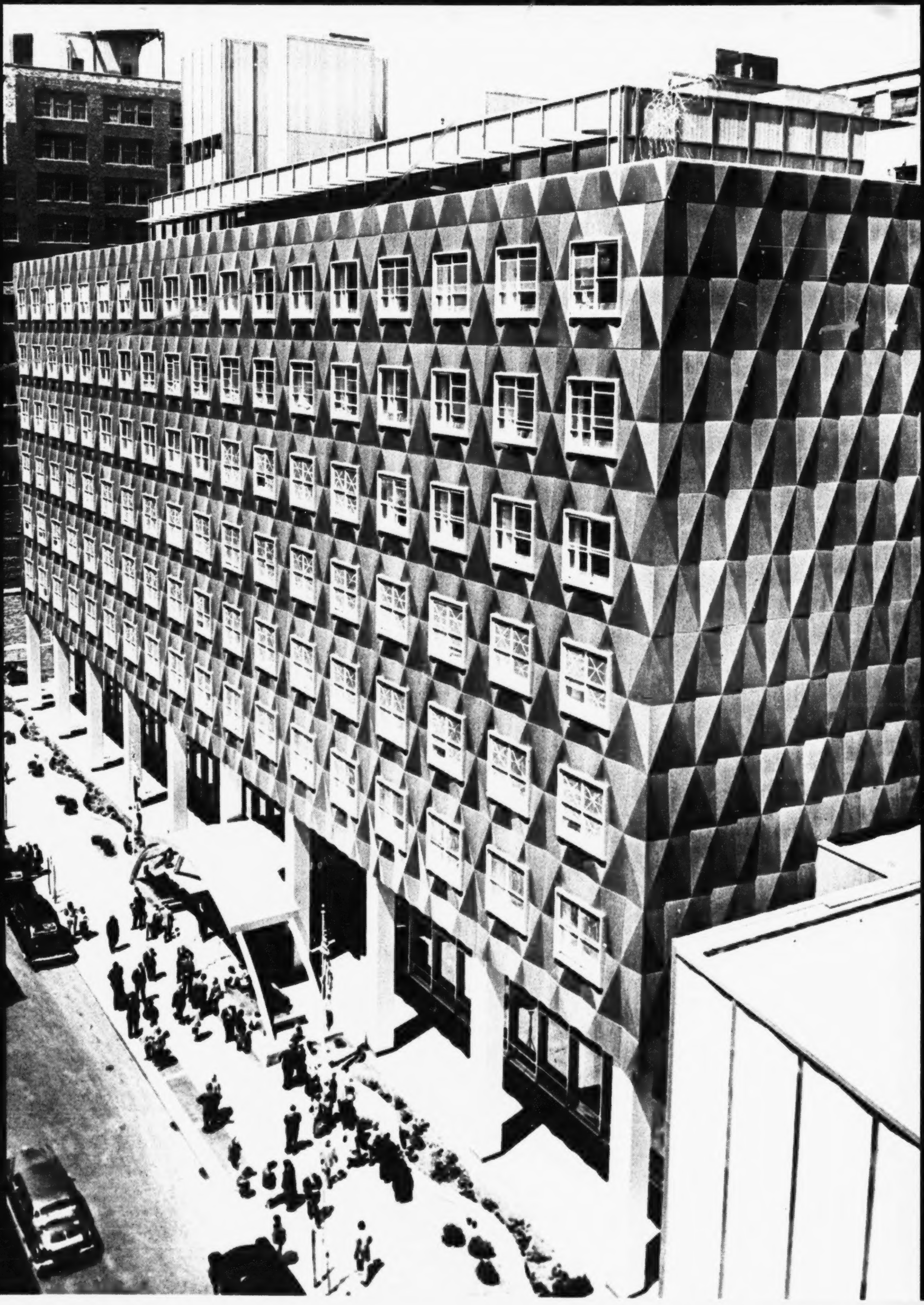
Get Land, Lots of Land—But If You Can't, Go Up



If you can get land, get land. It's the cheapest investment you can make. If you don't use it, you can sell it and make money. ❧ *Don't use glass bricks. You'll have to knock them out and put in concrete. They are fascinating to kids.* ❧ *Escalators cost no more than elevators and they move people faster.* ❧ *Location of college in a slum can pull the area up—but often the people move to worse slums.* ❧ *Flexibility in a building is related to imagination. You can find ways to make it more flexible. Look for dead space. Use it.* ❧ *A building is nothing more than a machine. Nobody has designed a machine for such a program.*

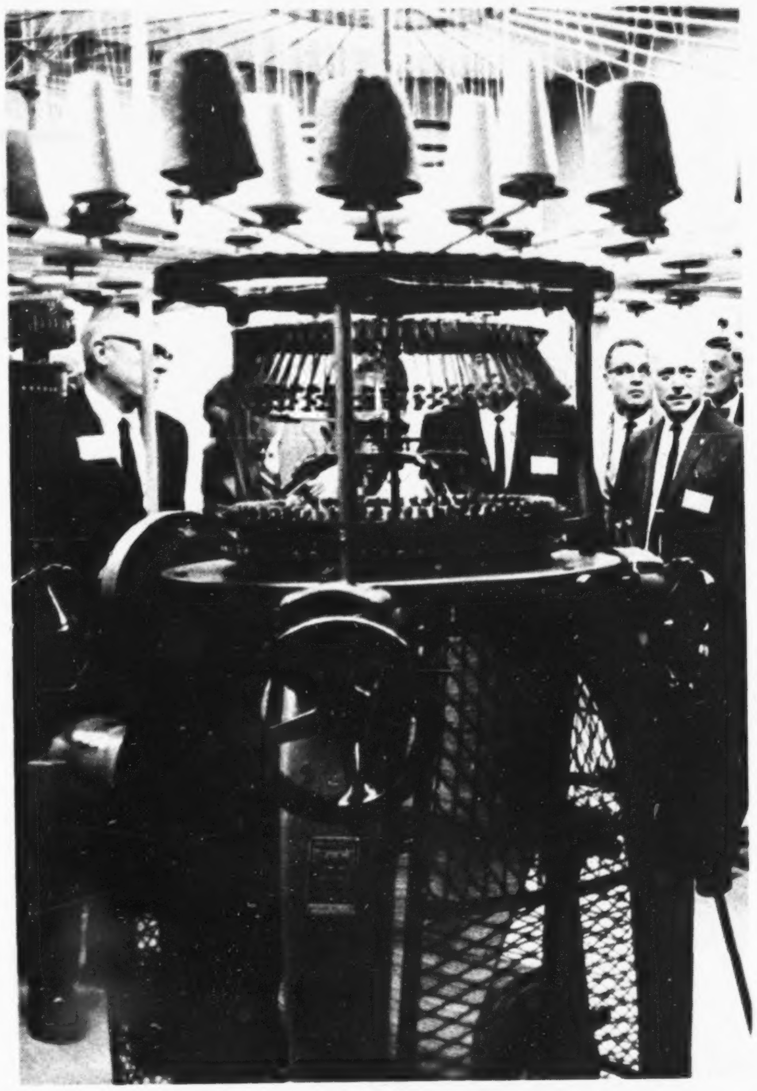
FASHION INSTITUTE OF TECHNOLOGY, NEW YORK

As the above comments of officials and planners of the Fashion Institute of Technology in New York City would suggest, the college provides many lessons for communities interested in establishing institutions of higher education in the heart of a city. Buildings must be vertically planned, taking advantage of air space. Land is at a premium. Facilities must be planned so that every bit of space is utilized. Ways must be found to move people rapidly from floor to floor. Yet, the surroundings ought to be attractive and comfortable to afford the best possible learning situations.

The Fashion Institute of Technology is a specialized college serving the garment industry, and is located at the heart of that industry. A part of the community college system of the State University of New York, F.I.T.'s present campus was begun in 1958. The college now occupies some 300,000 square feet in a nine-story building, and accommodates 1,250 full-time students and 2,500 part-time evening students. A master plan calls for expansion by an additional 800,000 square feet, which will enable the institute to more than double its capacity.

New York is the laboratory for F.I.T.—world renowned for its unusual program and product. Educational programs are designed in close consultation with the fashion industry. The college utilizes the most sophisticated and modern equipment available in its teaching. Its laboratories—weaving, textile design, printing and dyeing, pressing and sponging, cutting and pattern making, sewing and others—make clear what the institute is all about. Students can make instant socks on one machine. And they have contracted to supply certain goods to other public establishments.

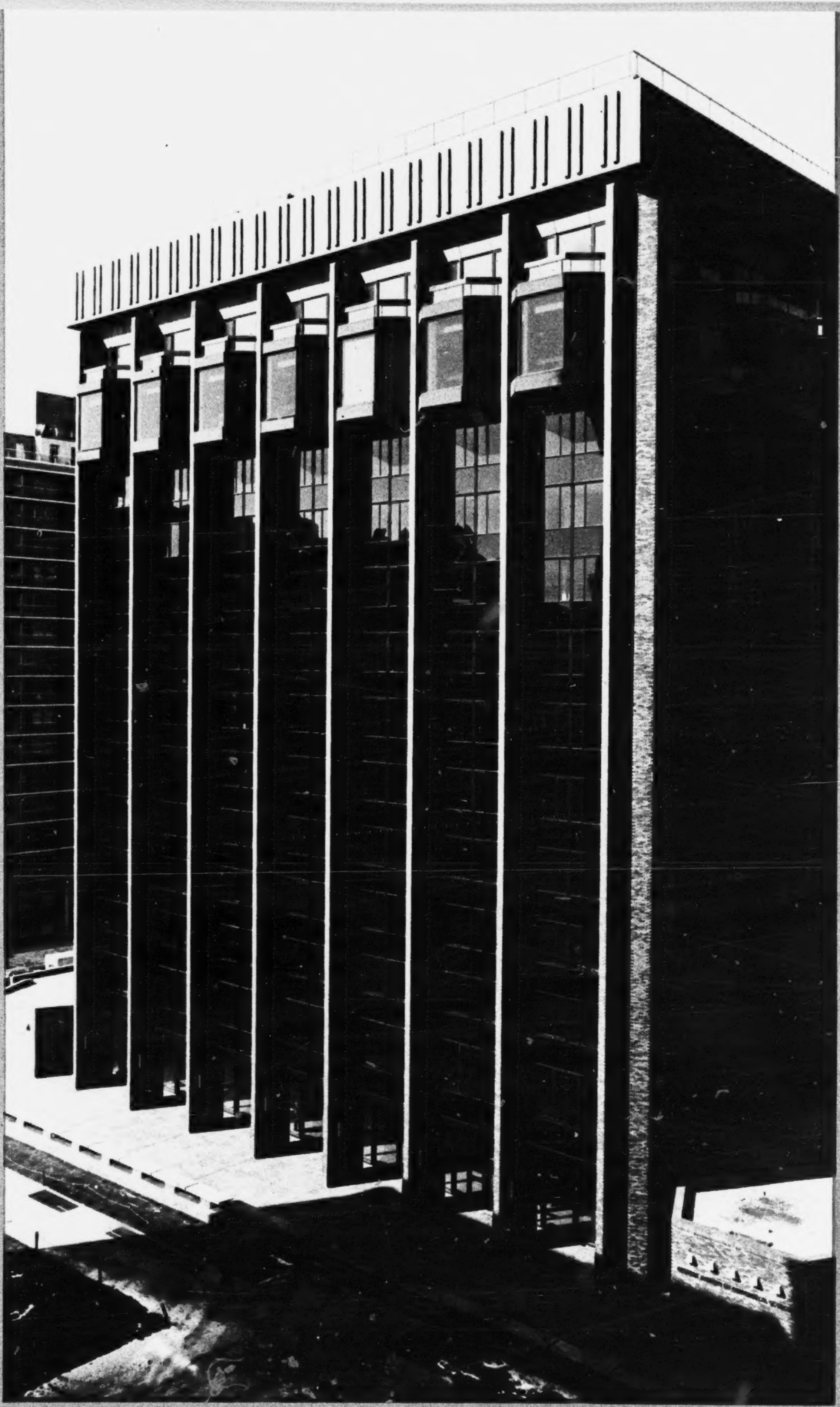
The long-range plans call for the Fashion Institute to take over an entire block. Not only will the college prepare young people for the fashion industry, but it will become a landlord in a high-rise building that will include apartments sitting atop levels that will house the college facilities. This college will offer recreation facilities for its students, housing, and commuter lounges—all the things that make for a situation conducive to learning.



SKETCHES
DESIGN PORTFOLIOS

THINGS TO SEE AT F.I.T.:

- Some of the most outstanding teaching laboratories in the world for a specialized industry
- How to cope with a congested situation by use of a high-rise facility
- Use of escalators to move students and faculty from floor to floor, from top to bottom
- Utilization of closed-circuit television for demonstration activities or for piping in visuals from other parts of the city
- Use of computers in a traditionally handicraft industry
- Classrooms large enough for conversion to laboratories if and when required
- Attractive lounge and dining areas
- Use of the roof of the building for outdoor social functions
- Specialized auditorium with ramps for modeling.



Math Students Should Really Be in the Trees

The first thing we told the architects was that we wanted windows.
Mathematics students should really be in the trees. ❧ *If we found someone who*
wanted an inside office, we'd fire him. ❧ *This is an office kind of building.* ❧ *The faculty-student*
lounge serves as a kind of mathematical stock exchange. ❧ *Coffee in the afternoon*
is a ceremony. ❧ *The time has come*
to cater to students and faculty—to lift morale. ❧ *It's nice to have*
a room or two where you don't have to focus on a screen or a stage—where
people can look at each other and talk.

WARREN WEAVER HALL NEW YORK UNIVERSITY, NEW YORK

In designing the spectacular Warren Weaver Hall at New York University, the architects were guided by the kind of thinking and philosophy expressed above by faculty and students who now study and work in, and enjoy the towerlike structure. Lots of window space, and the very height of the building, express the notion that mathematics students require a treelike environment, with lots of airy space and light but with limbs on which they can be somewhat isolated when necessary. Warren Weaver Hall houses the Courant Institute of Mathematical Sciences, a graduate activity where students and faculty engage in research and study.

Warren Weaver Hall rises thirteen stories out of the bustling Washington Square Campus of N.Y.U. While the building itself cannot help but contrast with the faded tenements, shops, and office buildings around it, the choice of brown brick and tinted glass for building materials gives it some identification with the surroundings. While the structure is somewhat overpowering as it suddenly comes into view, it exudes a kind of academic warmth expected of the modern college building.

Elevators rise from the ground floor up through the tower. A comfortable lobby and reception area take up much of the ground floor—along with some administrative offices—but two one-story wings project from the axis of the tower, one on either end. These contain three classrooms and a sloped-floor lecture room with seating for 196 persons.

A computer center is located on the second floor of the building (the lowest floor of the tower proper). Computer facilities located here serve the entire university. The third through the eleventh floors are staff offices and seminar rooms.

In their original statement regarding the needs of the institute, the mathematicians noted: "One of our major desires in connection with space is to provide our staff with the kind of quiet and freedom from distraction that is essential for concentration, and at the same time to make it easy for them to meet and talk to each other, so as to yield a maximum of interplay. . . ."

What they got were large, pleasant, one-man offices for their faculty, ample lounge areas, and even roof-deck terraces for residents of the thirteenth floor. The terraces are formed by projecting bays on the twelfth floor, which houses the large library of the Courant Institute. The bays at the library level are used as reading carrels.

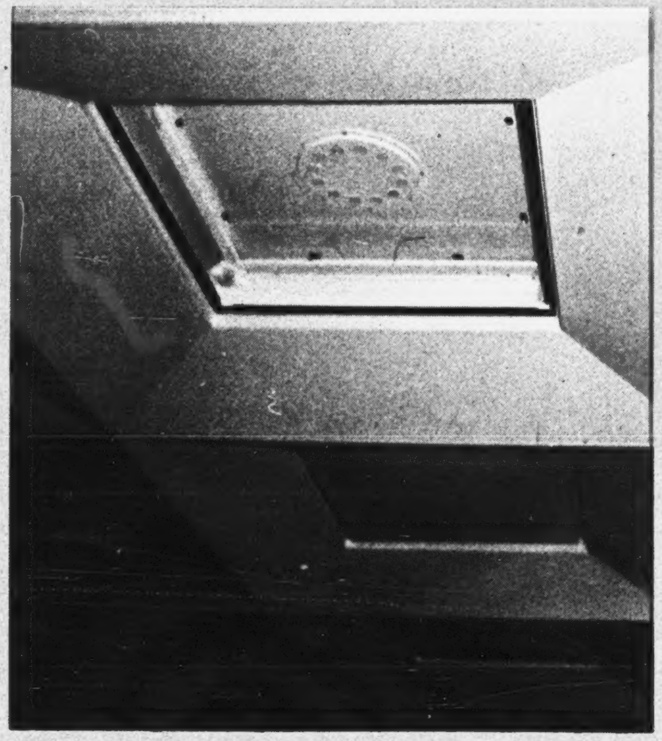
Other features on the thirteenth floor are a faculty lounge, an adjoining sixty-seven-seat colloquium room to the north, a large common room to the south, and several faculty offices along the west side. The common room provides a place for faculty and students to gather for informal conversation. The room is accentuated by a ceiling to floor chalkboard where mathematical arguments—or equations—can be settled.

Warren Weaver Hall houses below ground a central heating plant that services the entire Washington Square Campus of N.Y.U. The plant is completely automated. Much of the piping and duct work serving the heating and cooling system for the building is housed in the large brick columns around the perimeter of the tower house.

THINGS TO SEE AT WARREN WEAVER HALL:

- A spectacular exterior in an unusual big city environment
- Use of glass in a practical but aesthetically appealing way
- Achievement of an unusual effect through the tower concept
- The automated central heating plant for the university
- Use of latest computer equipment
- Unusually spacious and well-appointed faculty offices
- Library projecting bays and their double purpose—for study carrels and as terraces for offices above them
- Unusual attention to faculty and student morale through provision of lounge and other spaces
- Well-appointed classroom and lecture rooms.

MONROE COMMUNITY COLLEGE, NEW YORK



The buildings here will turn their backs on the cold winds. ❧ It's convenient and comfortable so students will want to stay rather than go to the nearest beer joint. ❧ The people of this community support education. ❧ This makes the whole trip worthwhile. ❧ A king-sized Dagwood sandwich. ❧ We trust students. We don't have discipline problems. ❧ The librarian probably consumed more of the architect's time than any other department head. ❧ I've never seen a college president who knew so much about the building program. ❧ What's the square foot cost?

Don't Build a Monument to Something Old-Fashioned

There's nothing old-fashioned about Monroe Community College. If it is a monument to anything, it is to solid community support, and interest in providing for the educational needs of the Rochester and Monroe County area. The college has been operating in temporary facilities since 1961, and its new 300-acre campus was programed to open during the winter of 1967. While the new campus is in a semisuburban location, it is within easy commuting distance by public transportation from all parts of the community. A sign of the commuter expectations is a parking lot for 3,200 cars. The campus is designed to accommodate 4,000 day students, and 10,000 in the evening program.

Monroe Community College can be looked at in two ways—either as a series of interconnected facilities, or simply as one large building. For those who use the facility, the important point is that all circulation is under shelter so that no one need ever be exposed to inclement weather while moving from class to class or from place to place on this campus. That is by design and for good reason. In winter, it gets cold in upper New York. It snows a lot. The planners wanted a campus designed in such a way that a student, once having arrived on campus, could circulate indoors to all building units.

In order to insure that students need not leave the campus between classes, a central section of the structure contains a second floor plaza offering services and recreational opportunities. It will be a kind of community within a community. Beneath the plaza, a student will be able to get a haircut, for example, or bowl a few games. There are also shops and eating places.

Monroe Community College was carefully designed, according to its planners, on the bases of educational programs that would be needed, the numbers of students that would participate in the programs, and the spaces required for the programs. Flexibility was achieved by designing classrooms so that usage can be changed with minimum disturbance to buildings.

Programed spaces are planned around a modular concept whereby all partitions fall on a modular line and all spaces are composed of a varying number of module units. A self-contained ceiling system provides uniform distribution of light and ventilation over an entire floor area which permits relocation of easily movable partitions with no disturbance to the ceiling plane. Mechanical services and air handling units are located in basement spaces; additional flexibility is achieved by distribution of ducts and service lines through vertical shafts on the outer perimeter of the buildings, leaving interior floor areas unobstructed.

To stave off the cold winds, the campus forms a wall to the west. The campus is oriented to the east, with the administration, library, and student center buildings located at the hub of campus activity. Maximum glass is used on the east overlooking highly developed landscaped courts formed by the building units.

With an eye to the practical as well as the beautiful, a lake has been developed in this area to receive drainage from the site. Minimum lake level is maintained when necessary by water supplied from a nearby barge canal.

Simplicity of materials—concrete, brick, and glass—and repeated use of a structural module give unity to the campus. Individual units of varying heights and shapes give it form.

The college is equipped with television studios and appropriate receiving facilities so that live or taped broadcasts can be piped into all classrooms and laboratories, and to lecture halls. In order to ultilize space more effectively, the three lecture halls of the college are located one on top of the other—like a giant sandwich. Thus, the floor of one becomes the ceiling for the other.

Perhaps the most notable design factor at Monroe Community College is that of providing for the comfort of student and faculty alike, of offering spaces for student mixing through the creation of the plaza and other social areas.

THINGS TO SEE AT MONROE COMMUNITY COLLEGE:

- A series of interconnected units designed for protection and comfort
- Flexibility in terms of ability to change spaces as program requirements change, with minimum disturbance to the buildings (modular concept)
- Provision of student recreational and social space and opportunities that make the campus a self-contained community
- Faculty offices situated adjacent to or wrapped around lecture rooms where they teach
- Television and other audiovisual services
- Inclusion of the technical division in the heart of the campus rather than in isolation from more traditional programs
- Adaptation of the campus complex to its environment (climate control)
- Treatment of the lecture halls to effectively utilize available space
- Interesting planning for mechanical services, air handling units, distribution of ducts and service lines.

SCARBOROUGH COLLEGE, ONTARIO, CANADA

It Was a Building Happening

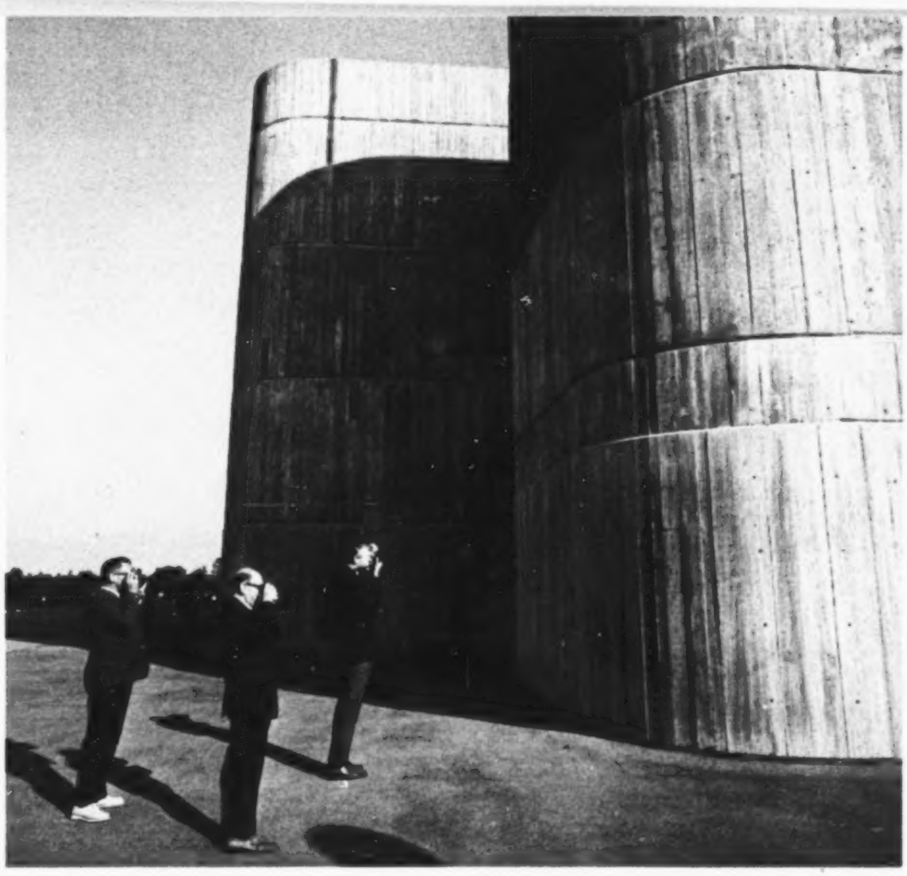
We were designing as we were building. It was a building happening. The only movable wall we put in the college has never been moved. ❧ *It has the massiveness of the Middle Ages—with the planes and angles of the twentieth century.* ❧ *It looks like the Maginot Line.* ❧ *The building clothes the things we have to do inside it.* ❧ *A great asset in planning Scarborough College was that the architects dealt with one man.* ❧ *Is the staff office a hideaway or a nook? We never thought of it that way—but it is away from the rough and tumble. After all, the guy does have some work to do.* ❧ *Scarborough would be all right if it weren't for all that concrete.*

Certainly no campus design raises more questions, more vigorous reactions than does that of Scarborough College. Reactions range all the way from awe, to open and jubilant approval, to a tinge of derision. From some vantage points, it looks like a factory or a great concrete dam—with no water behind it. Yet it has a strange and somewhat brooding beauty and appeal for many observers.

Scarborough College is a four-year branch of the University of Toronto located in a suburban section of Toronto, Ontario, Canada. The college limits instruction to arts and sciences, leading to bachelor of arts and bachelor of science degrees. The college strives to maintain academic standards equivalent to those of the parent university, and attempts to insure this by cross-appointment of faculty members so that they serve on both the university and the college faculties—and alternately teach on both campuses. The college is designed for 5,000 students.

Probably the most striking thing the visitor finds at Scarborough is the thing he sees first—the exterior of the building (or interconnected structures). It is formed of massive grey exposed concrete, most of it unfinished in any way. Inside, too, much of the concrete is exposed and unfinished to provide a simple but unusual effect in interior design.

Built atop a hill overlooking wooded parklands, the college consists of four interconnected units—one housing the humanities, another for dining and recreational facilities, the heart of the campus containing administrative offices for both students and faculty, and the science section containing fifty laboratories.



Pedestrian streets opening into a central meeting place provide for circulation within the campus without exposure to inclement weather in the winter. Terraces and parks surrounding the building provide for summer "mixing" outside the concrete walls.

Humanities offices and seminar rooms are located on the south side, open to the valley view. Each succeeding story is larger than the one below, thus providing protection from the sun. Six lecture rooms, varying in capacity from 50 to 200 students, present their windowless walls to the cold north wind in the winter.

Dining and recreational facilities open out onto a sheltered terrace, while dining spaces afford a variety of choices for meeting and eating. The administrative offices for students and faculty are grouped around the "meeting place," a great four-stories-high hall lighted by sixty-one skylights. The section also houses a library, though a separate library building will eventually be constructed.

The stepped effect of the humanities building has been reversed in the science area, which gets smaller with each successive story. The laboratories of the science area are, with few exceptions, designed for use alike by physics, chemistry, zoology, botany, psychology, and geography classes.

Technical innovations include large buttresses that carry air-conditioning, electricity, and gas. Light is admitted through plastic diffusing screens in the sloping ceiling, leaving all walls free for apparatus and experiments.

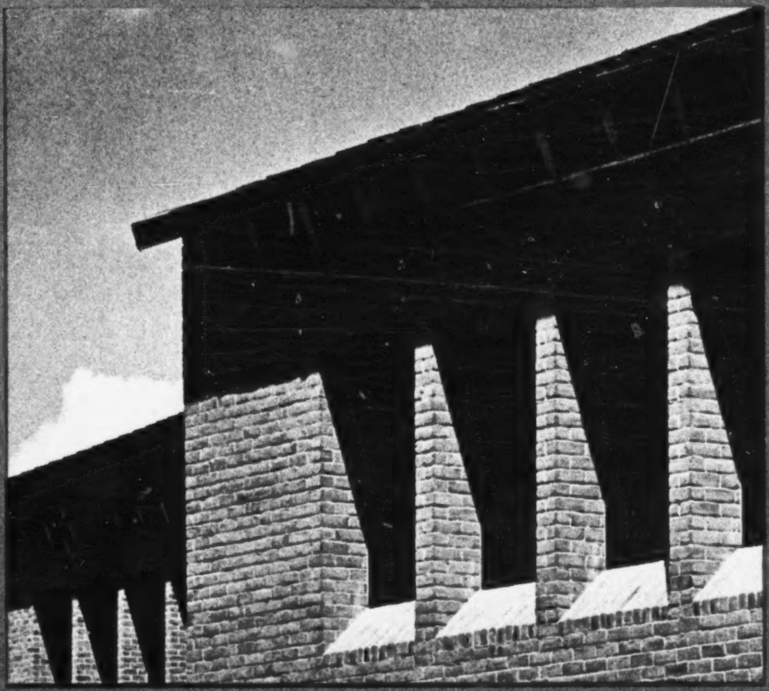
Latest advances in educational television are being utilized at Scarborough. By means of closed-circuit TV, professionally produced instruction is a part of the experience of all students. Talk-back facilities are part of the operation.

THINGS TO SEE AT SCARBOROUGH:

- Dramatic use of one overriding structural element
- Extensive use of television in instruction
- Flexibility in science laboratory planning
- Enclosed pedestrian streets linking the various units of the college which are also used as art galleries
- Faculty office spaces that reflect concern for individual needs
- Planning for growth with a minimum of moving and dislocation that normally accompanies expansion
- Stepped stories to shield one section of the building from the sun, thereby creating indoor balconies
- Laboratories than can, because of movable furniture, be converted from one kind of class to another, and can be used as lecture rooms for as many as forty persons, labs for twenty, or seminar rooms for ten or more
- Effective planning for mechanical services.

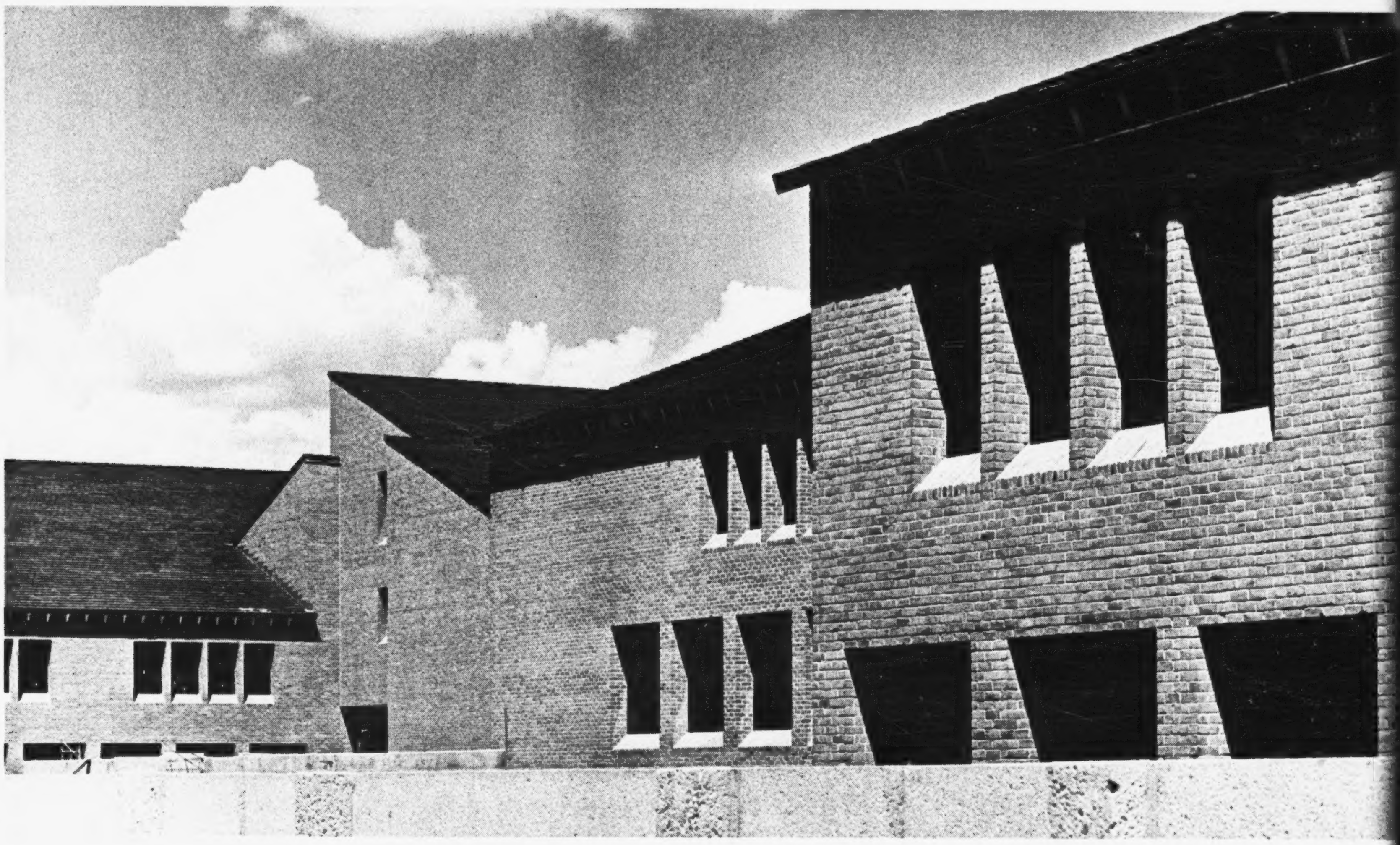
OAKLAND COMMUNITY COLLEGE

ORCHARD RIDGE CAMPUS, MICHIGAN



We'll have 17,343 yards of carpeting. We have tried to frame the vista.
Design should reflect the special quality of the junior college.
It is not like a high school or a university. The cafeteria is more important
as a learning center than the library. Quit giving today's
learning and yesterday's education for tomorrow's world. This is a learner-centered
institution. Let the kids swim in the pool of knowledge along with the teachers.
Do they care about the student's soul?

17,343 Yards of Carpeting



Oakland Community College, serving the large suburban Detroit community of Oakland County, Michigan, now has campuses in three locations. In operation since 1966, the college presently enrolls more than 4,000 students. While two of the campuses—Highland Lakes and Auburn Hills—are in temporary facilities, the third unit, Orchard Ridge, now occupies brand new facilities. This report deals with the Orchard Ridge Campus.

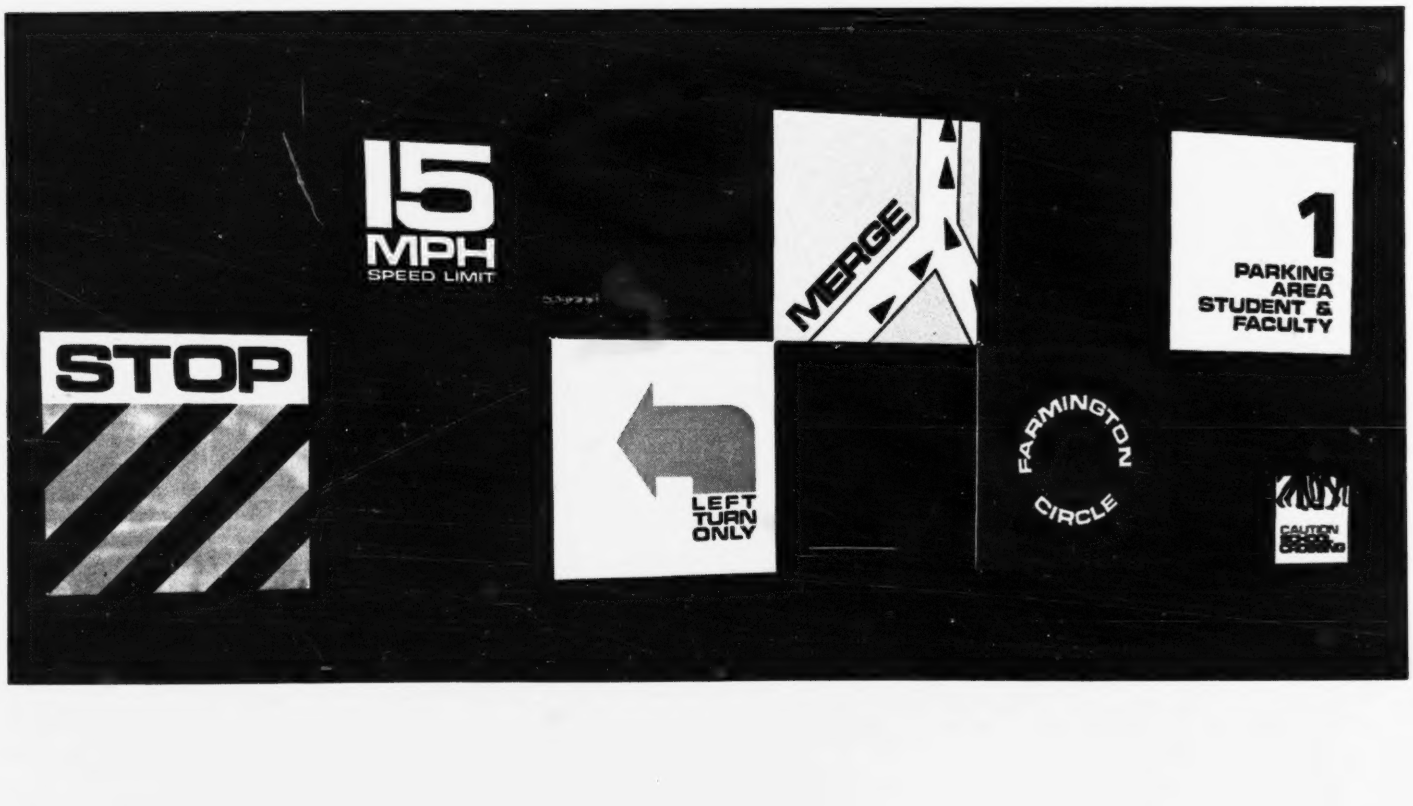
To appreciate the design of the campus, the nature of the instructional program must be understood. It it unusual, even in this day of technological advancement. Breaking with all tradition, the college uses an instructional systems approach to teaching and learning in tutorial laboratories. Students learn at their own pace through use of programed learning devices. Instructors prepare much of the material that their students learn from and they provide individual and group assistance to students as they proceed with the learning process. Oakland's philosophy is that the students should "swim in the pool of knowledge," that teachers should not come between the learner and the pool.

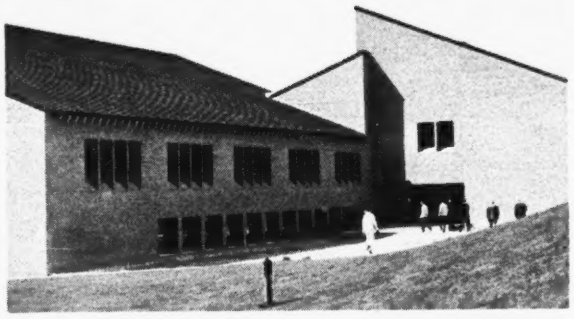
Outwardly, the Orchard Ridge complex of new buildings (opened in September 1967) reflects no more than any other college campus the radical instructional departure of this "learner-centered" institution. The campus is striking—the buildings have unusual modern shapes—but it is identifiable as a college campus. It complements, rather than detracts from, the beautiful but rugged wooded terrain that comprises its setting. The design, according to the architects, was to suggest a "point of arrival."

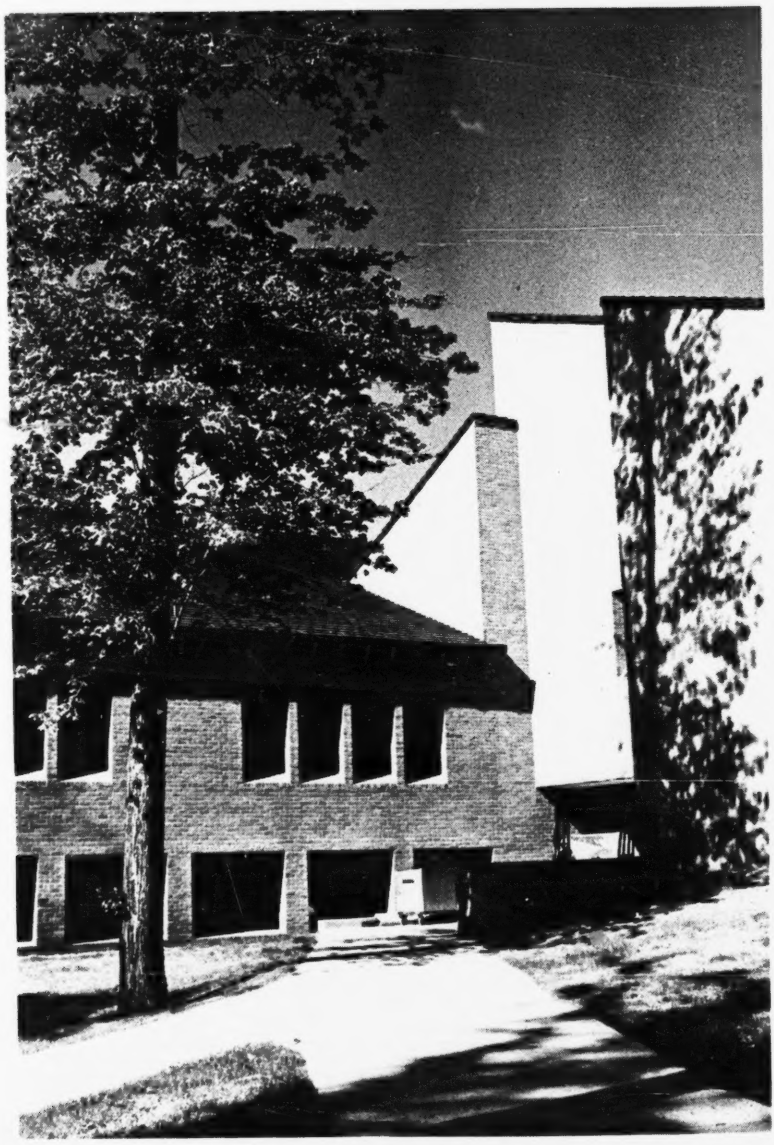
The tutorial units surround a raised plaza, under which service facilities are located, and which connects to the learning resources center. In former days, the center would have been known as the library. Buildings are constructed of medium dark brick and rough form concrete. Windows are of tinted glass and require no drapes or shades.

The 149-acre site is set well back from the busy suburban highways, with a handsomely landscaped driveway leading to the buildings themselves. A 3,000-car parking lot immediately marks the institution as a commuter college.

The eleven buildings on the campus include six instructional centers which house learning laboratories and small assembly areas. There are no classrooms in the usual sense. A fine arts building includes large assembly areas for theatrical and choral presentations, and facilities for art and music courses. The commons—which serves as a student center—contains four large assembly rooms, each with a capacity of 200, a bookstore, snack bar, dining areas, recreation room, and cafeteria. Another building houses administration and the power plant.







THINGS TO SEE AT ORCHARD RIDGE:

- Reflection in all facilities of the systems approach to learning
- Nontraditional design and use of space—study carrels, learning laboratories, and assembly areas rather than classrooms
- Adaptation of design to the setting of the campus
- Striking architecture in shapes, forms, and angles
- Use of one element—brick—to good effect in construction and design
- Flow of spaces from area to area and floor to floor by means of open stairways and lack of intervening walls
- Computerized library services
- Widespread use of carpeting
- Use of a plaza to tie the campus together
- Attractive graphics system (directional signs).

CHICAGO CITY COLLEGE, ILLINOIS

Dribs and Drabs—Basements and Storefronts

NEW ERA
OPENS
FOR
LOOP
COLLEGE
for Junior College

This college has never had a new building. It has operated in dribs and drabs, basements and storefronts.

◆

They operate from 8:00 a.m. to 10:00 p.m. every day of the week except Sunday.

◆

If we have a telephone booth, we use it for a classroom.

◆

We are going to get adults even if they have only a fourth grade education.

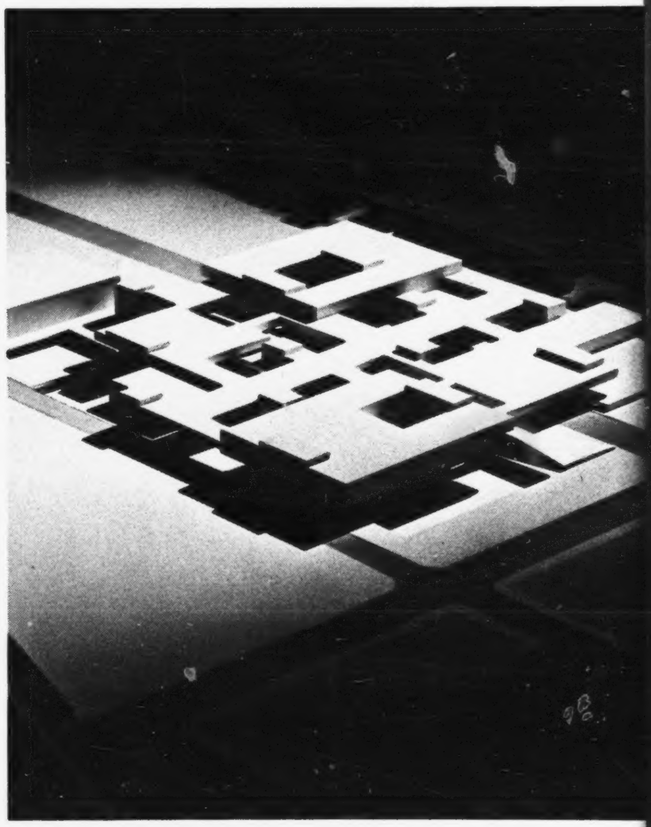
◆

This community college is too important to the city of Chicago to let anything stand in the way of its development.

◆

We'll reverse the cycle in the city—bring the whites to where the Negroes are.

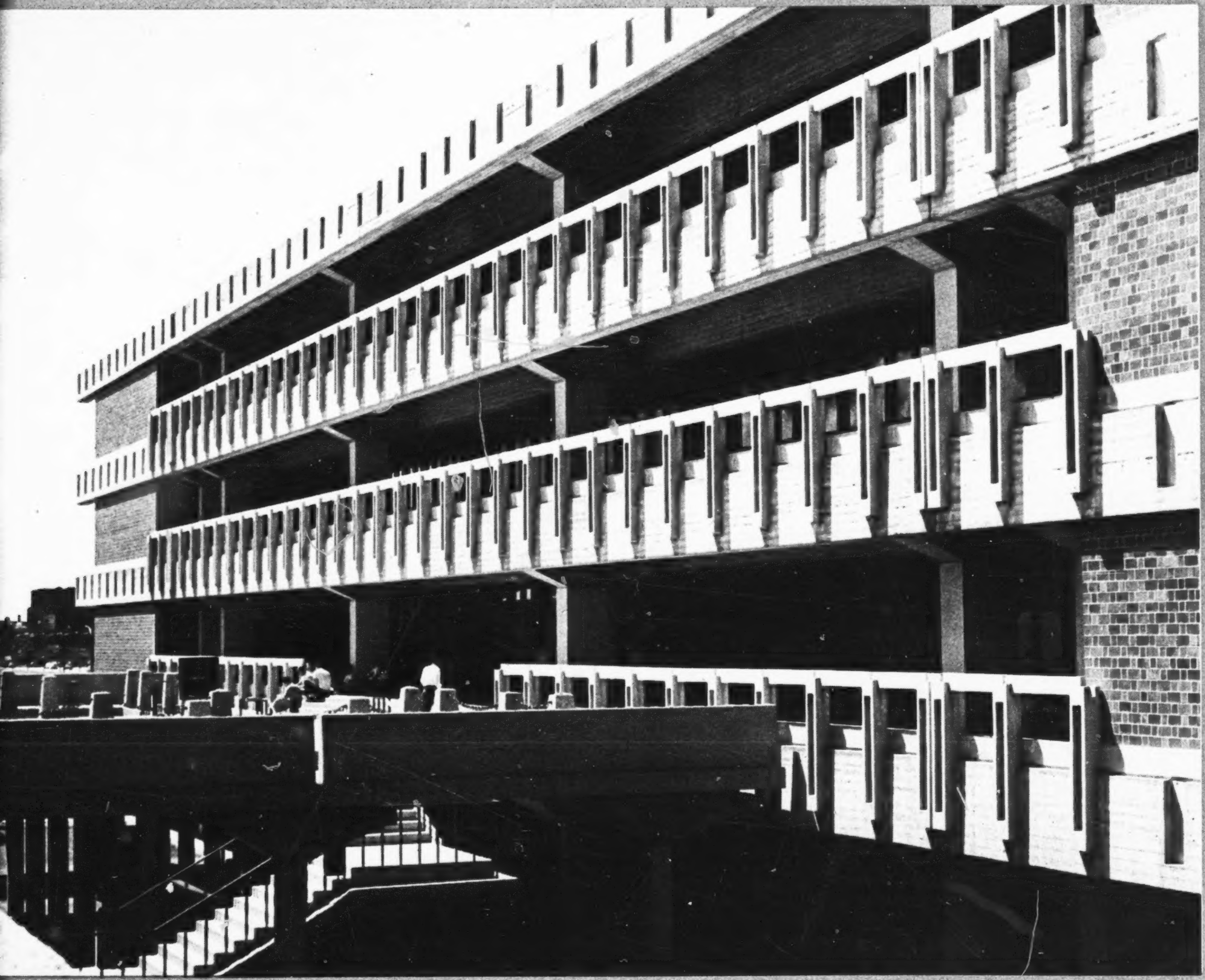
Chicago City College in 1967 did not have new or unusual facilities, as the above comments suggest. The fact that this institution is one of the largest in the country is significant in itself: this junior college system enrolls about 33,000 students in eight different locations. The popularity and usefulness of the junior college idea is dramatically illustrated by the fact that Chicago area citizens have for years taken advantage of courses and programs offered by the system despite the fact that facilities leave much to be desired. Most of the campuses are in old high school buildings and one in the famous Loop section is in a former office building. Recent changes in junior college development and planning in the state of Illinois have removed most junior colleges from the aegis of local school boards. As a result, Chicago City College is proceeding with plans for the creation of new campuses embodying new concepts of education and community action.



The college, for example, is planning new facilities in semicommercial areas with an aim to reversing the racial cycle in this metropolitan center. They will be built in areas deliberately to attract a mix of Negro and white students and, in fact, to draw whites back into communities that have become predominately Negro.

Two new campuses have been authorized, and much of the design work has been completed. One of them, the Wilson Campus, is being charted as a "sidewalk campus" which will invite residents and students to walk in and use ground-level community facilities. The intention of the architects and college planners is to design Wilson as a prototype urban campus which will be a community center as well as an educational complex. The other campus being planned is for the Loop College, which will be built in an area known as the Illinois Central Air Rights. This means the high-rise campus, consisting of a single building, will be constructed over the tracks of the Illinois Central railroad. Other campuses may be built over freeways; there may be a library-college. Buildings in most areas will be high-rise since land is at a premium.

CHICAGO CIRCLE CAMPUS UNIVERSITY OF ILLINOIS, ILLINOIS



Construction Will Never Be Finished

We will never finish construction of this campus if we are to meet enrollment projections.

◆

How do you reconcile a wall around the campus with wanting to be good neighbors?

◆

Why do you isolate the faculty from the students by putting them in a tower? We made a mistake on our food service needs by projecting them on the basis of statistics on dormitory-type campuses. This is a commuter campus.

◆

It's difficult to bring about a social mix. Students in Chicago have ethnic cohesiveness. They've grown up with it.

The Chicago Circle Campus of the University of Illinois represents an effort to bring the offerings of the university to the people in this metropolitan center. It is a commuter campus—and its planners believe that it is realistic to say that it probably never will be completed in the normal sense. Planned for an ultimate enrollment of 23,000 students, its administrators now believe that enrollment projections will go up and up in the years ahead. Located just west of the Loop in the center city, the complex of first-phase buildings occupies 40 acres. The entire campus consists of 106 acres, surrounded by the sights and sounds of the big city.

***Architectural Forum* notes: "The strength of the environment at Chicago Circle is in part the strength of rough-cut granite and coarse-textured concrete, of big spaces and massive forms, of long straight lines and uncompromising intersections. But beneath and beyond all this, it is the strength of consistency achieved without conformity."**

Buildings are clustered around a great open area, a raised plaza. Beneath the plaza is the lecture center, with stairs joining the lecture areas to the upper level and forming an amphitheater. Traffic circulates on two levels, the upper level consisting of solid granite structural slab construction, and ramps which bring pedestrian traffic from parking lots and subway stations outside the campus itself. A faculty and administrative tower, twelve stories high, overlooks the scene from one edge of the campus.

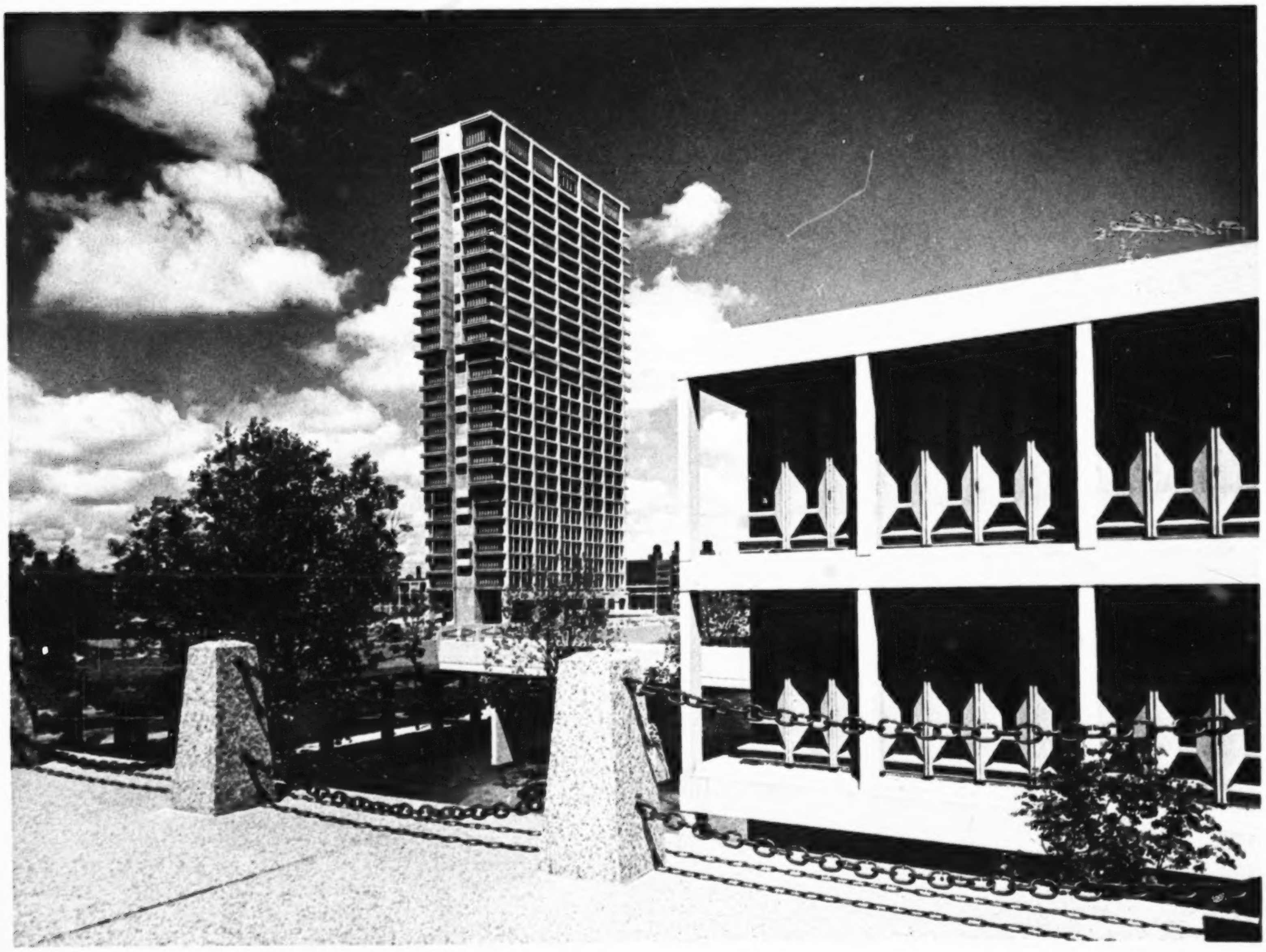
Clusters of classrooms are located around the upper level, with walkways leading to each cluster. Below is the lecture center, around which the design of the campus revolves. The center contains twenty-one separate halls ranging in capacity from 75 to 500. Typical lecture rooms are arranged around a core where rear-projection equipment is or can be installed.

The engineering and science laboratory is another striking example of balance without conformity. Containing seven bays, the building is three stories high, and its roof is supported by freestanding columns. This building serves as a gateway to the campus, with walkways passing through and onto the main part of the campus.

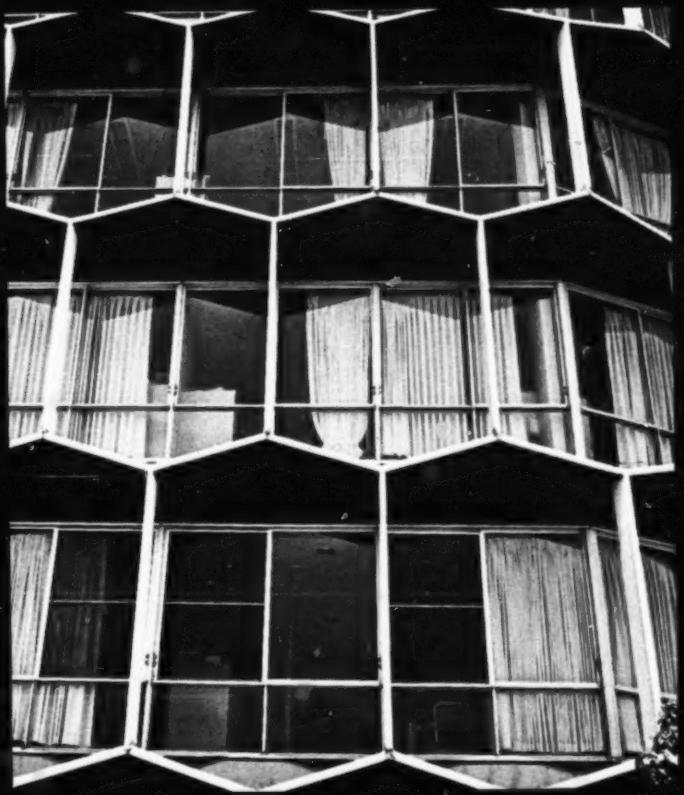
The faculty tower is encased in a kind of concrete and glass cage, with offices and seminar rooms built around the perimeter of the building and the core housing central services. Typical floors of the tower have private offices along the perimeter, clerical spaces and seminar rooms in the central core. An elevated walk penetrates the base of the tower.

THINGS TO SEE AT CHICAGO CIRCLE:

- Rise of a complete new campus from a congested downtown big city
- Unusual design in terms of materials and sizes of buildings
- Planning for traffic circulation through elevated pedestrian expressways. Leads to subway station overpassing all vehicle traffic
- Well-planned lecture halls and laboratories
- Landscaping
- The great plaza and amphitheater
- Office tower that dominates the scene.



NORTHEASTERN ILLINOIS STATE COLLEGE, ILLINOIS



"Honeycomb"

Ours is a story of growth and change. ◆ *Team here means team teaching rather than athletic teams.* ◆ *It is foolhardy to put in sophisticated audiovisual media without considerable technical backup.* ◆ *Within five years, we will be preparing junior college teachers.* ◆ *Bug-house square provides weekly opportunities for students to air complaints. There is a desperate need for more student-centered space because this is a commuter college. We like the "beehive."*

Despite the change in its name, Northeastern Illinois State College—formerly known as Chicago Teachers College North—continues to be dedicated to the preparation of men and women for teaching, principally in the elementary and secondary schools (though the college planners, cognizant of the rapid development of junior colleges in Illinois, expect in the future to help meet demands for teachers in the two-year junior college field).

In looking at facilities on this campus, the observer should base judgments on the college's orientation to the education and training of teachers. The college is located in an older residential section of Chicago—and is a commuter college. Its facilities and general layout have some of the characteristics of the typical community junior college.

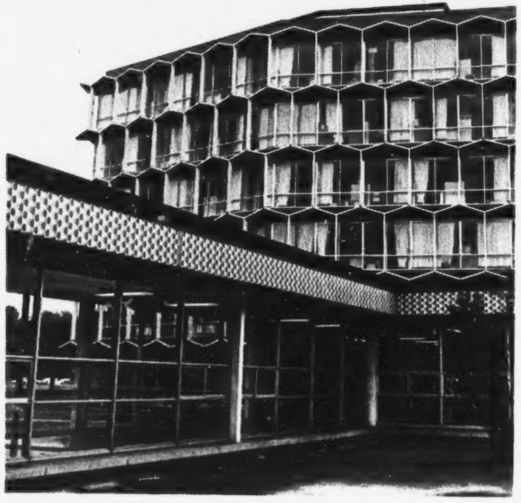
The campus is dominated by the "beehive," the faculty administrative tower, which also sets the design theme. While the other buildings in the complex are generally simple in design, the elongated hexagonal shape of the six-story office unit gives the impression of a honeycomb, and thus adds a dramatic flavor to the overall design. The honeycomb motif reappears throughout the buildings in the shapes of the classrooms and corridors. The hexagon theme is also carried out in the physical education area, and even in its swimming pool.

Arranged around a series of landscaped courts and gardens, the college consists essentially of eight units under a continuous roof. In addition to the office building, it includes a library, lecture halls for groups of between 90 and 150 students, a 750-seat auditorium, a student center, and the physical education area.

The library is a comfortable place, situated on two levels. The mezzanine, or second level, has recording and listening rooms. The main library area is separated by dividers which provide for privacy. A courtyard provides an outdoor reading area. Similarly, eating facilities for faculty and students are arranged in a split-level cafeteria.

Hallways contain carrels for "instant study." Northeastern did not invent the multimedia approach to teaching, but the institution has put the concept to effective use throughout the campus. In the auditorium, for example, a multiscreen communications system coordinates the use of slides, motion pictures, large screen television, and other audiovisual devices. Classrooms are more than adequately equipped for use of audiovisual media.

Flexibility is a keynote of the classrooms. Folding partitions make it possible to change the size of a room quickly. Laboratories make use of specially designed equipment, and are planned for comfortable efficiency.



THINGS TO SEE AT NORTHEASTERN:

- The honeycomb design—departure from boxlike rooms and buildings
- Openness resulting from use of courtyards and glass window-walls
- Swimming pool flush with the floor
- Comfortable dual offices for faculty in the "tower"
- Effective planning and use of multimedia
- Distribution of study carrels in corridors and the library
- Multipurpose auditorium unusually well equipped for audiovisual communication; audience responder units
- Flexible classrooms made possible by operable partitions
- Spacious eating areas
- Well-planned laboratories.

The Living Room

EDWARDSVILLE CAMPUS SOUTHERN ILLINOIS UNIVERSITY, ILLINOIS

What spaces really make up a university? ❧ *You've got to be prepared for change.* ❧ *You need a living room—and a den—on a commuter-centered campus. This is the best science laboratory I have ever seen.* ❧ *The library reflects in the arrangements of books the divisional philosophy.* ❧ *They gave a lot of attention to provision of free space.* ❧ *A great example of how good landscaping can contribute to a campus.* ❧ *We thought this auditorium might be the end of the road, so we tried to make it extremely flexible. It represents a workable compromise.*

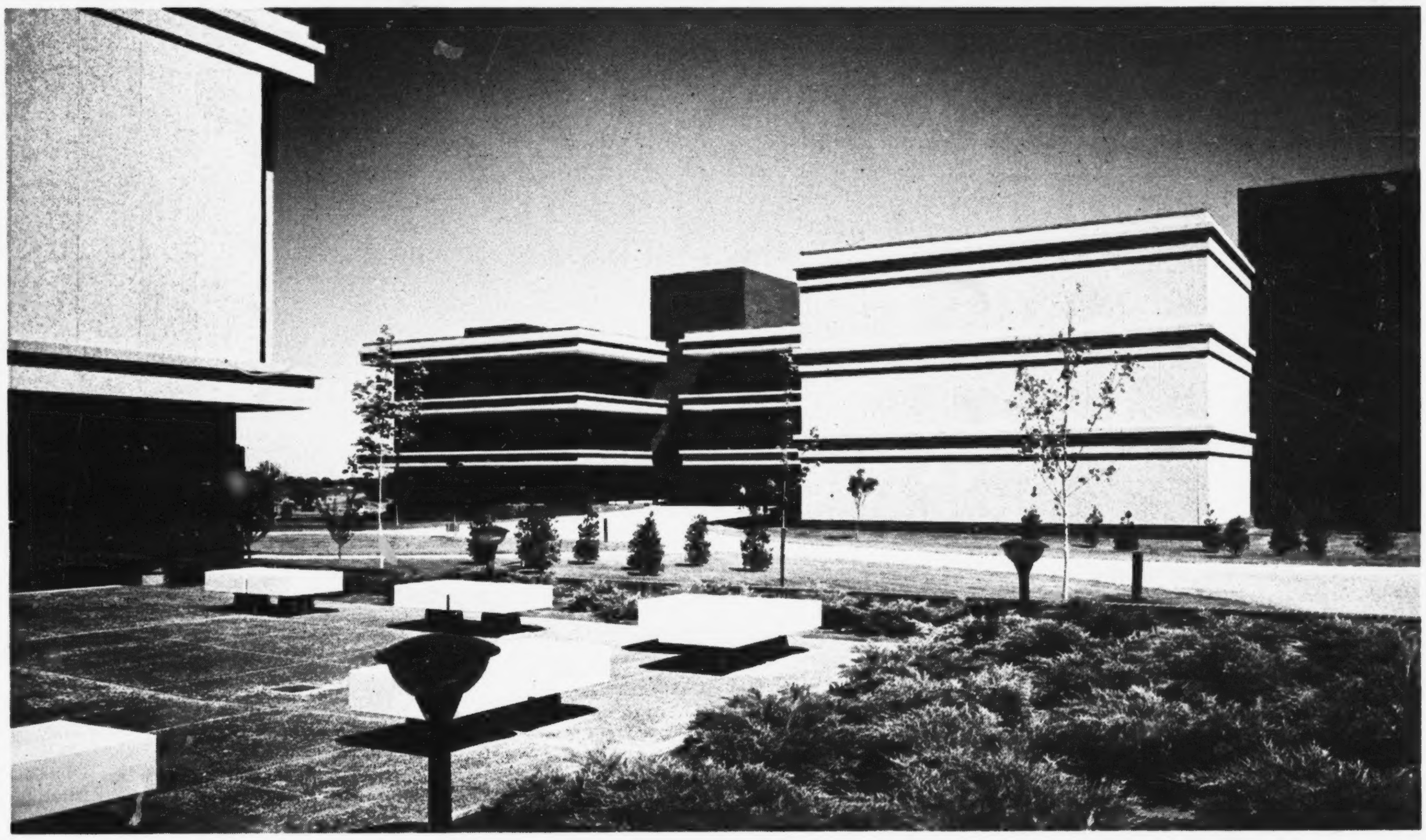
Here is another commuter campus, but different in that it is located in the country. It is close to many small towns, and only twenty-five miles from St. Louis, but nevertheless removed from the bustle of big city life. The "it" is the Edwardsville Campus of Southern Illinois University, one of the most rapidly growing institutions of higher education in the country.

The architecture at Edwardsville blends into and complements its setting, the rolling farmlands and wooded valleys along the bluffs of the Mississippi River. There is a symmetry in the buildings without sameness. Variations in heights of buildings and in textures and colors of construction materials provide aesthetic appeal. The use of towers in construction gives vertical relief to a basically horizontal situation. The brick towers house all of the fixed, supporting areas, including stairs, rest rooms, elevators and mechanical equipment.

Further contrast is brought about with the use of dark brick in the towers and precast concrete for the horizontal walls of the structures. The long free spaces house the active functions. Large expanses of grey glass add to the blend.

The buildings sit around the edges of preserved open spaces, which provide a courtyard effect, with pedestrian walks crisscrossing and leading to and from the various structures. The large parking area outside the campus is broken up by landscaped mounds.

Recognition of the commuter nature of the Edwardsville Campus is best expressed in the university center—a center for student services. Major access is provided from all four sides of the structure to a central two-story lounge "hub." Off the skylighted hub on the first floor are the university store, music and reading lounges, main ballroom, and student activity offices. The second floor holds additional lounge space, and a table-service restaurant. On the lower level, which opens out onto a terrace, are snack bar and dining facilities, as well as bowling and other recreational spaces.



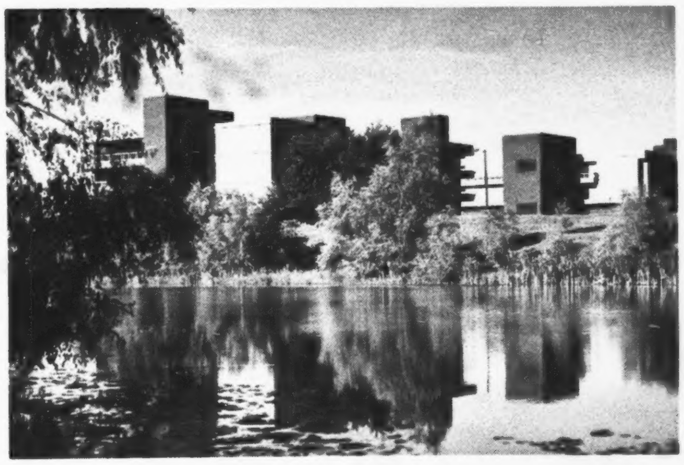
The communications center, another important landmark, is at once a classroom, a lecture hall, a theater, a movie hall, and a concert hall. Facilities and electronic equipment for television and radio transmission, audiovisual presentations, and data processing are a part of this plant. The core of the building is the theater which has a capacity for 400 persons, with an open stage partially enveloping the audience.

The library occupies its proper place of importance in relation to other facilities. As with other key structures, openness characterizes the building. The four-story building has a skylighted, open center bay. At the second level, four corner bays serve as reading spaces.

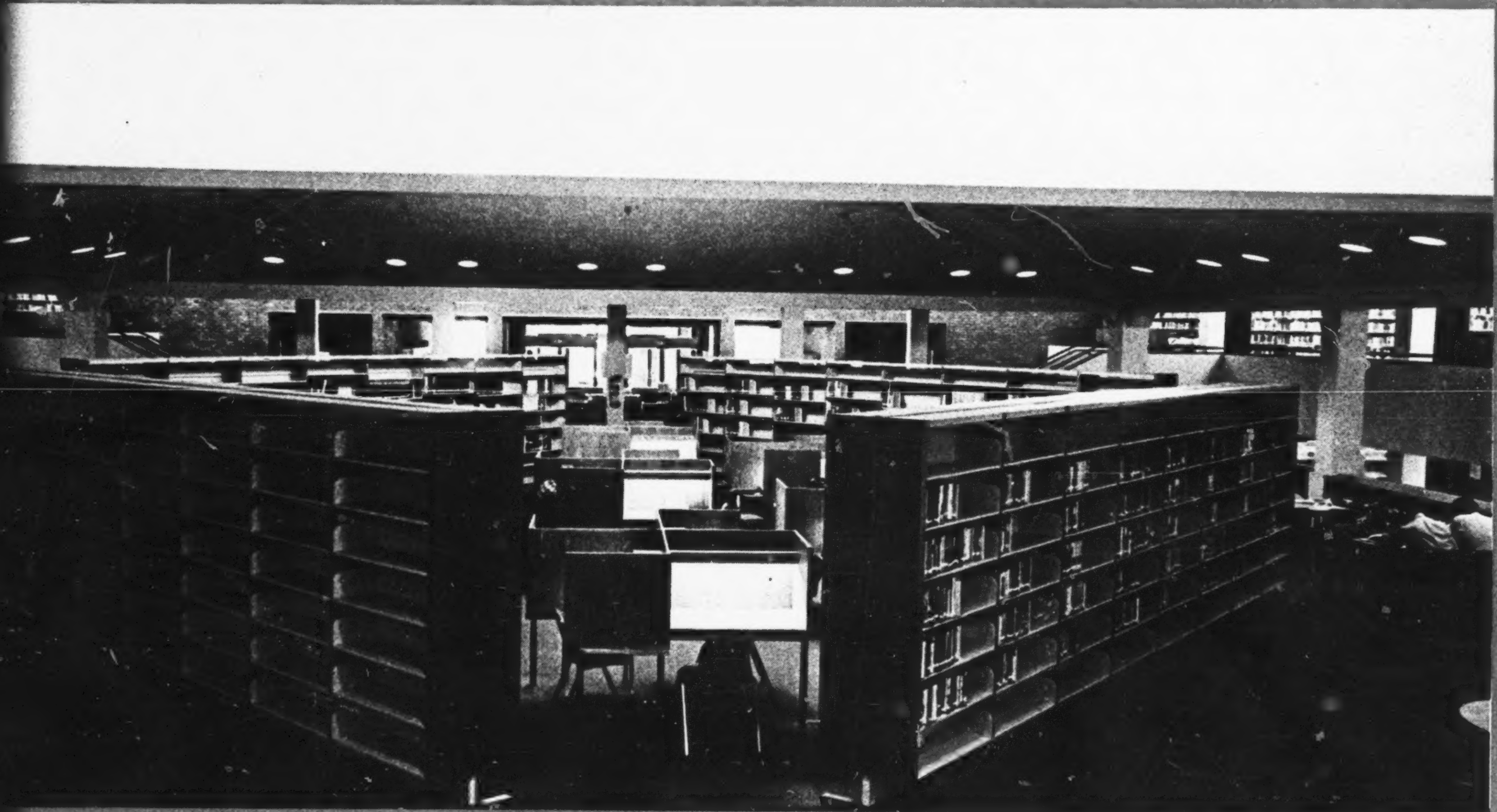
The other major units are the classroom building and the science building. In the former, classes are taught in two identical wings, offices are housed in another wing, and still another accommodates a central entrance and lounge area. The science building brings together all laboratories of the various scientific disciplines—thirty-two laboratories for twenty-four students each, on four floors—plus a variety of preparation and lecture rooms. The most interesting feature about the science building is that all laboratories are completely interchangeable among the various disciplines. A new system of laboratory furniture components was expressly developed for this purpose. A system of individual equipment storage "tote trays" was also developed to triple the use of each lab by speeding change of equipment.

THINGS TO SEE AT EDWARDSVILLE:

- A commuter college designed for a country setting: architecture that complements the setting
- Further emphasis on the commuter through the spacious, comfortable, and attractive university center
- Versatile "compromise" for communication arts and technology
- Flexible, interchangeable science laboratories
- Preservation of open space, topography, and native vegetation
- Free-flow, unrestricted, open library
- Fixed spaces contrasting with free spaces throughout the complex of buildings.



This is truly a comprehensive college—even in its facilities. ◆ ***How do you put personality into a 727-foot hallway?*** ◆ ***We operate under the TRIP philosophy of counseling. If the student won't come to the counselor, the counselor sticks his foot out the door and trips the student.*** ◆ ***We have 1,700 parking spaces—and we need to double that.*** ◆ ***It's a good example of conservative contemporary planning.*** ◆ ***The student counts. He is of prime importance.*** ◆ ***Housewives with free time, students who need a second chance, fully employed men and women, and students who have found that the reality of the work world demands more education, can all find some fulfillment in the general curriculum.***



FOREST PARK COMMUNITY COLLEGE

THE JUNIOR COLLEGE DISTRICT OF ST. LOUIS – ST. LOUIS COUNTY, MISSOURI

A 727-Foot Hallway

Here, once again, is an example of the reach-out to people in the big city. Forest Park Community College is a part of the phenomenal St. Louis-St. Louis County Junior College District which began in 1963 and now serves more than 16,000 individuals. The other two campuses, Florissant Valley and Meramec, are in suburban locations, where construction of permanent facilities is underway.

Located near busy U. S. Highway 40, Forest Park is a downtown campus that blends interestingly into the metropolitan surroundings. The present building, which represents Phase I of the campus plan, is an elongated structure, somewhat austere in appearance, which relates interestingly to the busy city traffic corridors of its neighborhood. Red brick is the predominant material, with some relief provided by the glass of the windows. A focal point of the campus is a plaza at the main entrance which serves as a mixing area and amphitheater.

Because of its restricted downtown site, the building rises five stories with classrooms and faculty offices on either side of long corridors. Laboratory space is located on top, and large lecture halls with heavy traffic at the bottom. The vertical hierarchy of activities minimizes traffic on stairs. The teaching units move out in opposite directions from the central focus. They are 180 feet long, and are serviced by circulation and utility towers at each end. The towers also give the structure an identity of its own.

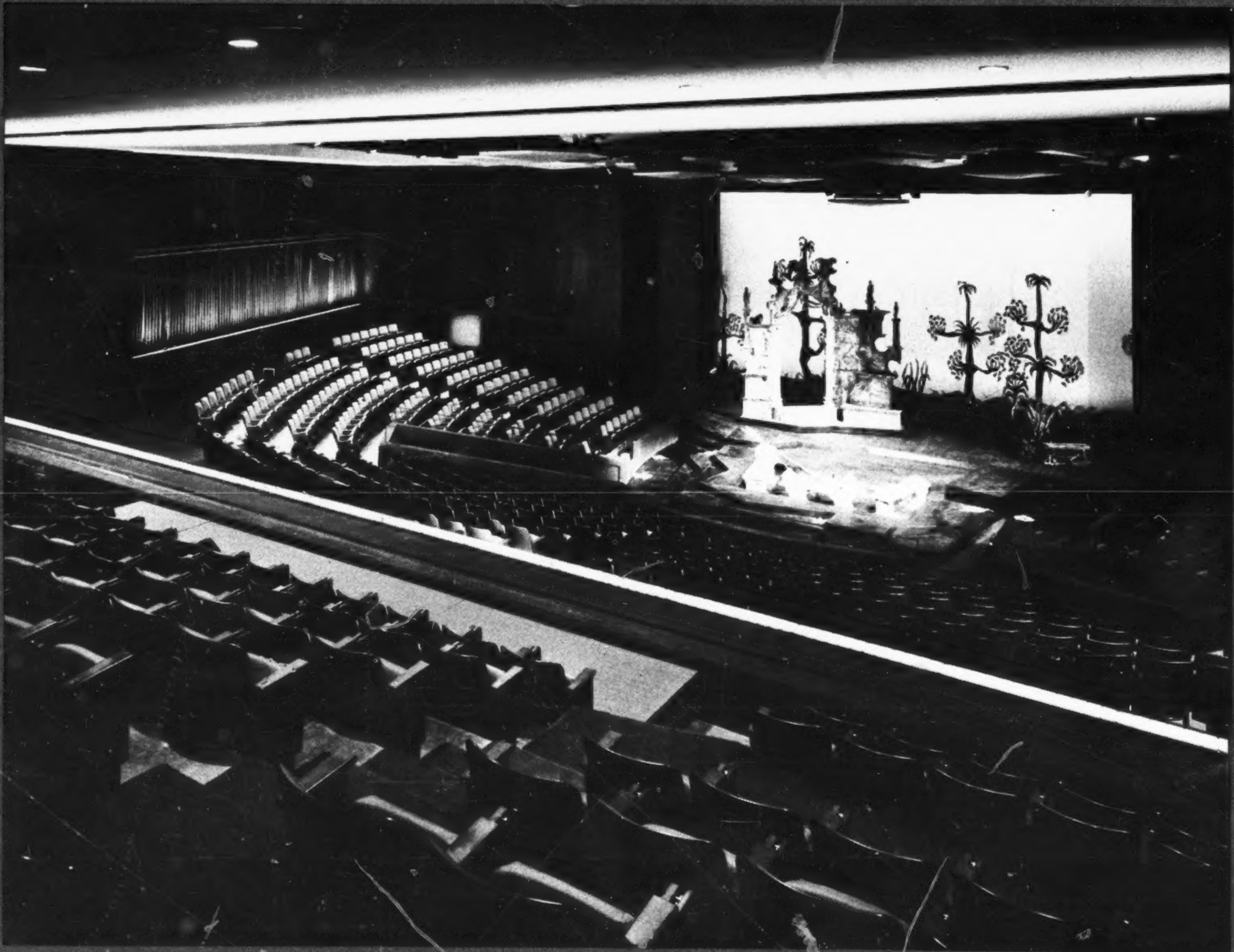
In recognition of the importance of counseling in the comprehensive college, areas for this purpose are located throughout the building. The campus library and administration offices are located opposite each other and form the horizontal focus of the campus. The library is on two levels with a mezzanine area and clerestory natural lighting. The college is equipped for programed learning.

THINGS TO SEE AT FOREST PARK:

- Good use of restricted site
- Imaginative library plan
- Planning for proper traffic conditions in a vertical situation
- Well-planned science laboratory space
- Decentralized counseling centers throughout the campus
- Organization of teaching space by function rather than department
- Relieving monotony of long corridors by proper lighting
- Flexibility in space planning
- Well-dispersed lounges.

LORETTO HILTON CENTER FOR THE PERFORMING ARTS

WEBSTER COLLEGE, MISSOURI



I like the concept of relating the college to
the cultural life of the city by providing certain facilities which can be used by
the general public. ❧ *Talk about personality.* ❧ *The old-fashioned Sunday school approach.*
Excellent compromise.

Sunday School Approach with a New Look

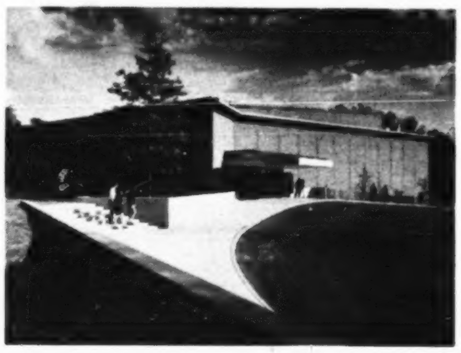
Loretto Hilton Center for the Performing Arts is on the campus of Webster College, a four-year institution that made headlines when it broke away from its church-related tradition (Roman Catholic) to become a secular college. It is a women's school, with emphasis on liberal arts education and specialization in fine arts and teacher training. Webster is located in a pleasant suburban area.

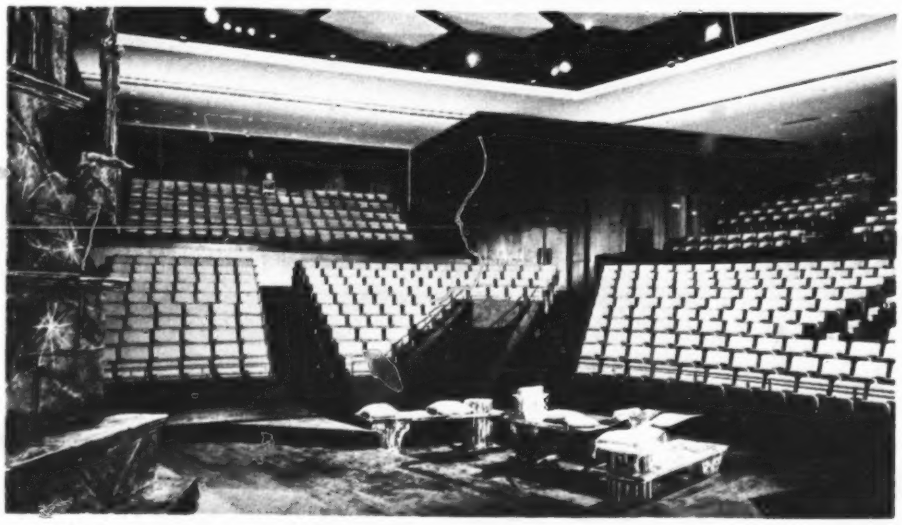
The recently constructed center represents an exceptional if not unique approach to multipurpose design. While multipurpose planning is not new, and in fact has been described as the old-fashioned Sunday school approach, the Loretto Hilton Center has carried the concept a step further than most institutions. *Architectural Record* notes: "What is new and noteworthy about . . . the center is the degree of sophistication with which the concept has been designed."

Changes in program at Webster necessitated creation of new facilities for theatrical and musical productions as well as new instructional facilities in the fine arts. It became apparent that cost and availability of space would prohibit establishment of separate buildings and it was decided that a compromise would be to combine the new requirements in one structure.

The center, which has all the outward appearances of a concert hall or theater, accommodates at least twenty-one different functions. A variety of staging situations can be obtained and, fully opened, the hall provides seating for 1,000 persons. Mechanically operated, soundproof facilities can be quickly put in place to seal off space for lecture areas or classrooms. When the partitions are open, these serve as galleries for the main theater. Three such rooms—two of the same size, one larger—can be set up. Attached to the partitions, which slide into the floor and ceiling, are chalkboards and screens.

The auditorium serves as a concert hall or theater for community performances as well as college activities. The lobby of the building serves a dual purpose as a reception area and art gallery.



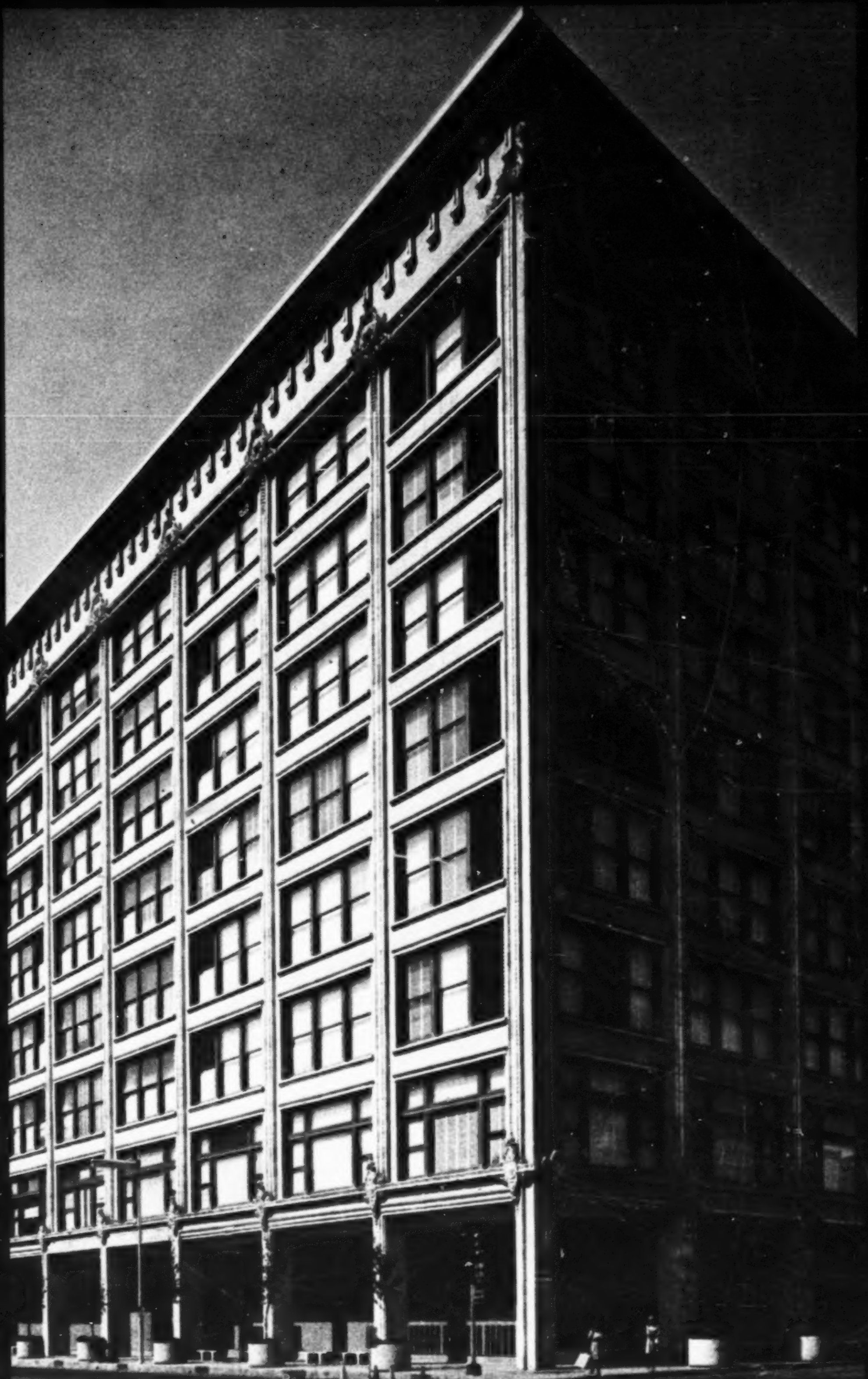


THINGS TO SEE AT LORETTO HILTON:

- Acoustical planning in a multipurpose divisible building
- Lobby-art gallery
- Various types of stages
- Mechanically operated partitions
- Offices and dressing rooms below the auditorium
- Simultaneous activities with acoustical separation.

EL CENTRO COLLEGE

DALLAS COUNTY JUNIOR COLLEGE DISTRICT, TEXAS



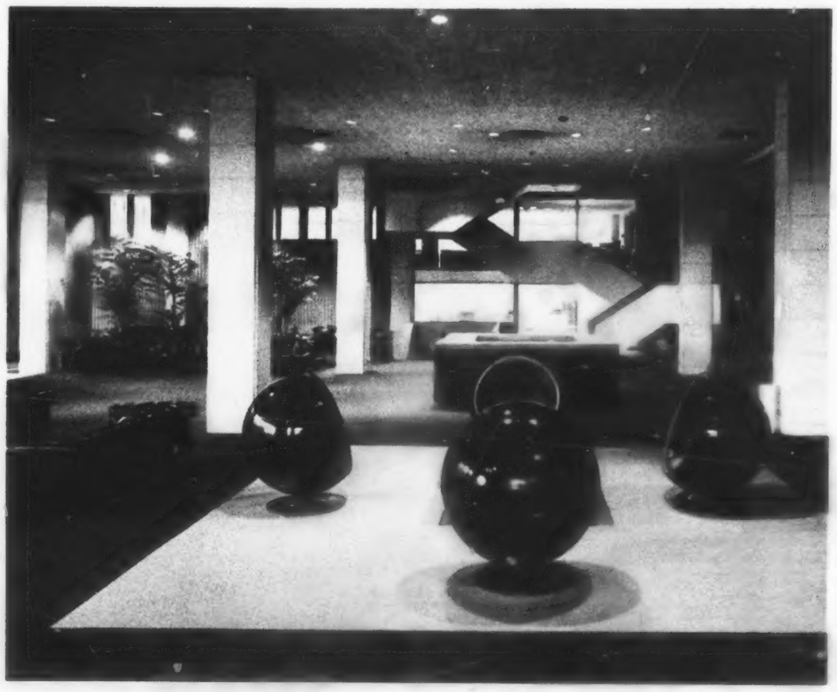
Nobody knows the troubles we've seen. ❧ *You outsmart yourself if you just zero in on the top 10 per cent—the other 90 per cent are going to be around.* ❧ *We hired an architect on April 5, had plans for bids by May 5, opened in September.* ❧ *We didn't know what might be under the facade of the old building.* ❧ *Can you have a classy college image in an old department store?* ❧ *The student lounge looks like the inside of a Braniff airplane.*

Department Store College

The comprehensive community college concept has often been likened to an educational supermarket or a department store, where students can shop for what they want, where there is a wide choice of options for study and training. If there is any validity to that concept, then the notion of converting a former department store into a community college makes good sense.

That, of course, was not the reason for the establishment of the first campus in a projected Dallas County, Texas, junior college system in a former department store. Behind the action was the need felt by the community to get a college started as quickly as possible in the best possible facilities available, and the downtown store building seemed to meet the criteria. It became El Centro College.

The store was completely remodeled to house typical programs of a comprehensive community college, anticipating an enrollment of 2,000 full-time equivalent students. Results of the quick-but-careful planning are attractive, efficient facilities which give Dallas a head start on its proposed seven campus community college system. The department store college is actually three adjoining buildings, ranging in age from about 50 to 75 years. Beyond the not-unhandsome exterior of the building, one enters a bright lobby-reception area equipped with modern lounge furniture and handsome lighting.



On the ground and basement floors are housed a student center—which includes the bookstore, cafeteria, lounge, and recreation areas—plus student government and organization spaces. Some classrooms, as well as the library, instructional media center, health center, counseling center, and campus administration offices are located on the second floor. The third through eighth floors include the faculty offices, laboratories, and remaining classrooms. The ninth floor is used for district administration offices. The facility includes thirty lecture rooms, most of them seating from forty to fifty students, with three seating from 100 to 200. There are also twenty-six laboratories or combination lecture-laboratory rooms, most of which accommodate from twenty to forty student stations.

The college is well equipped and furnished. The library, for example, has an automated system for handling services. Instructional media are carefully integrated with the library.

EL CENTRO COLL

THINGS TO SEE AT EL CENTRO:

- Well-planned spaces for student extracurricular activities and recreation—attention to the commuter student
- Automated library system
- Appealing interior design, particularly in reception area
- Efficiently organized bookstore
- Handling vertical circulation with old elevators and student operators
- Planning that results in maximum efficiency and comfort in a difficult remodeling situation
- Graphics system for campus circulation.

ORANGE COAST COLLEGE

ORANGE COAST JUNIOR COLLEGE DISTRICT, CALIFORNIA

Forms and Forums

We cannot afford the luxury of wasted space. There must be flexibility.
There's something for just about everybody here. ❧ *This is a truly multipurpose junior college.*
We really got our money's worth. ❧ *The forum concept for*
large-group instruction has worked well. ❧ *It's not every campus that has a working oil well.*
We are just as proud of our vocational graduates as we are of our academic graduates.

Orange Coast College, while it is not a new campus, is one that still has much to offer planners of educational facilities looking for good design and planning ideas. The college is one of two campuses that presently make up the Orange Coast Junior College District, located in the most rapidly growing county of California, and the fastest-growing section of that county. Master planning calls for enrollments totaling 10,000 students on this campus—which is located a few miles from Los Angeles.

Orange Coast is probably one of the most comprehensive junior colleges in the country, offering a huge array of technical and semiprofessional curriculums as well as the traditional liberal arts offerings. A student can learn petroleum technology, for example, by actually working with an oil-drilling rig, or he can build a house and sell it in the building construction program, or get the bugs out of a balky automobile engine through various auto mechanics courses.

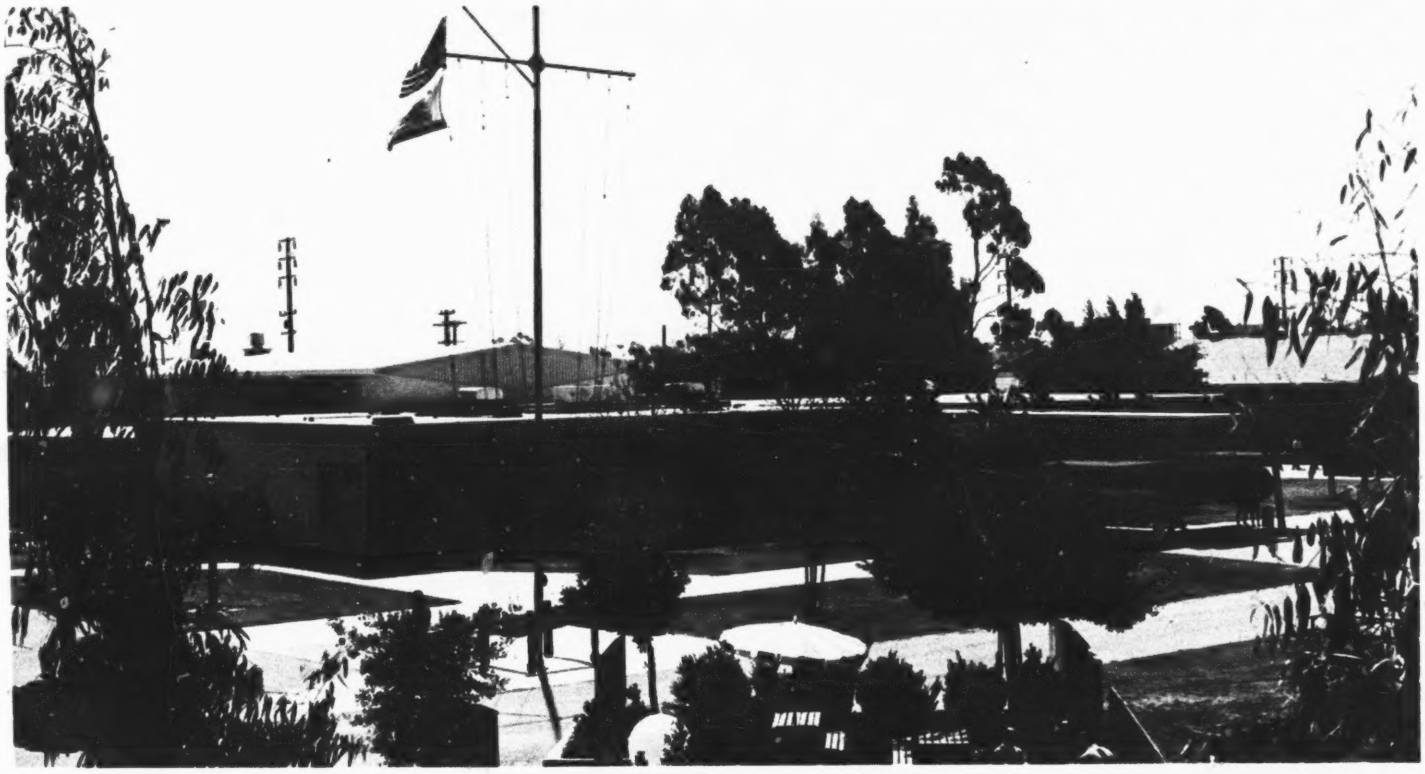
The college occupies a 200-acre site, which was once an Army base. Though a few of the old Army installations are still in use, there is very little on the campus that does not identify it as a college. A sort of open-air complex, the campus is well landscaped with trees that offer protection from sun and wind and give human scale to large open areas. There are now about thirty-one different structures—with eight new buildings being planned.

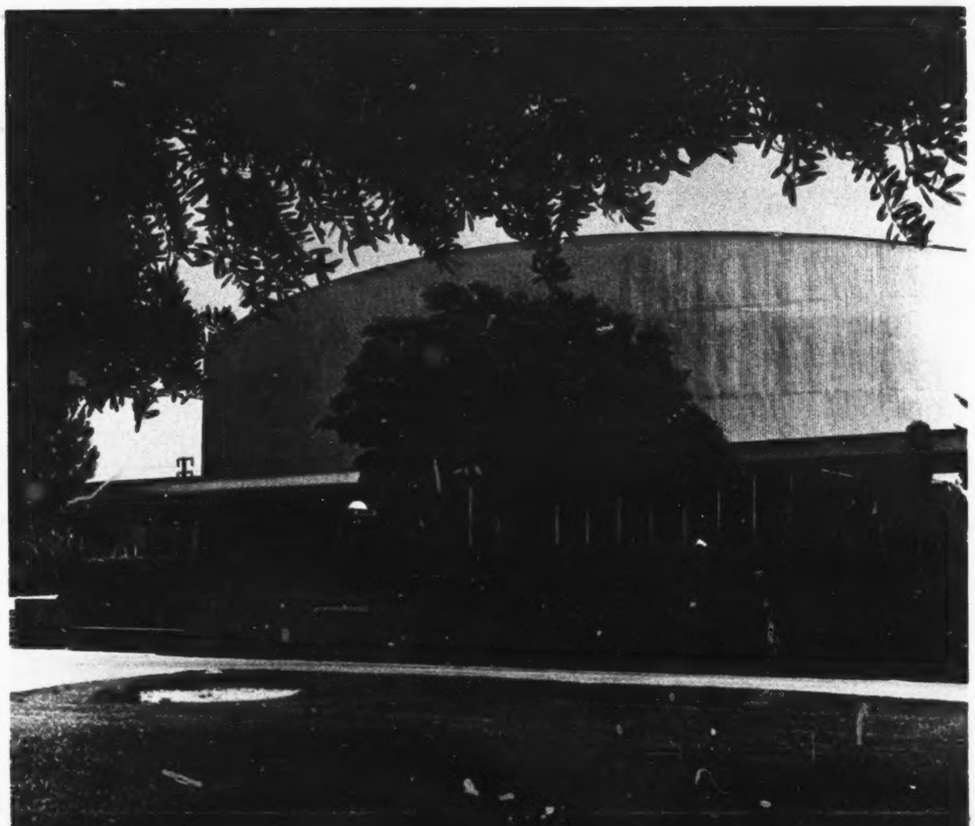
Orange Coast College pioneered the "forum" concept of education, where large-group instruction can be carried out efficiently and effectively. Large lecture halls, one for the sciences, make wide use of audiovisual aids in the instructional process. The "forum" concept has resulted in obvious economies in terms of space utilization and teaching requirements.

The college also boasts a handsome auditorium for both institutional functions and community use. Plays, concerts, and meetings are conducted in the auditorium. Acoustics are outstanding.

The gymnasium and other physical education facilities are important features of the campus. There are two stadiums and two swimming pools—one for beginners and the other for advanced students.

Data processing is an important curriculum at Orange Coast, utilizing sophisticated equipment and teaching techniques. Machines can be easily maintained through a modular floor plan that allows easy access to equipment.



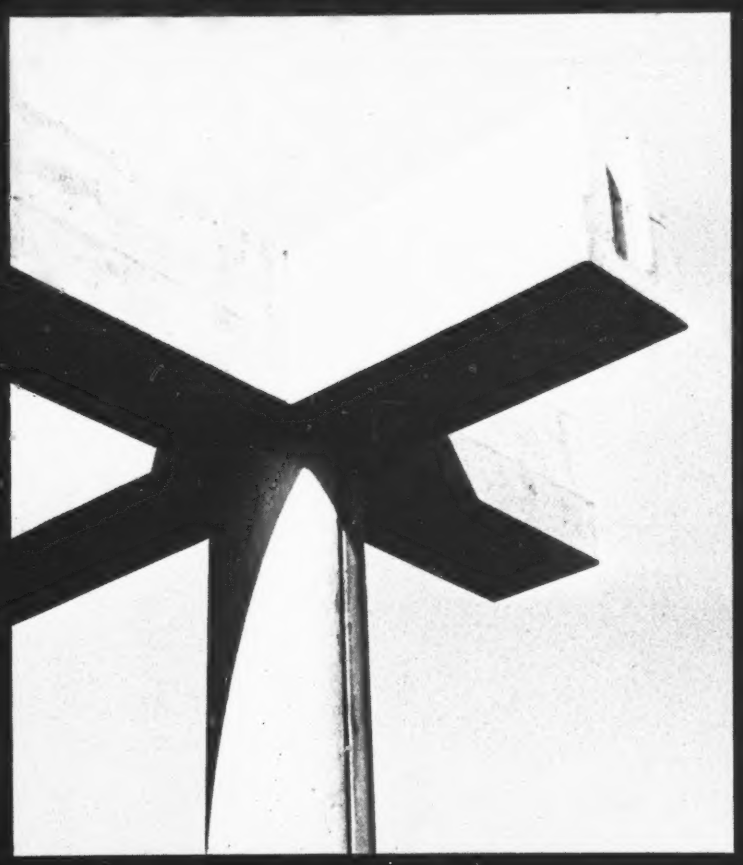


THINGS TO SEE AT ORANGE COAST:

- Large-group instruction via the "forums"
- Well-equipped occupational education laboratories and shops
- A working oil well
- Excellent physical education facilities
- Community-centered facilities
- Attractive courtyards and other spaces for "mixing"
- Excellent acoustical treatment of the 1,200-seat auditorium
- Decentralized food service (snack bars).

GOLDEN WEST COLLEGE

ORANGE COAST JUNIOR COLLEGE DISTRICT, CALIFORNIA



Dead Level Site and White Hot Sky

What do you do with a dead level site and a white hot sky? ◆ *We were asked to design for change and growth.* ◆ *Not buildings but space. Not space but environments.* ◆ *Nice beefy concrete.* ◆ *Don't marry a method, or make it a ritual or a religion.* ◆ *The expression audio-learning is more suitable than audio-tutoring.* ◆ *The architects had an opportunity to be inventive.*

Golden West College, opened in 1966, is the second campus in the Orange Coast Junior College District. The complex is located on a 122-acre site in north Huntington Beach and is in dramatic contrast to its sister campus in terms of design and layout—though its educational program is similar to that of Orange Coast.

The architecture was developed to blend with the flat terrain and the "white hot sky," and, more importantly, to allow for continuous growth. Thus, a plan was evolved whereby new structures can be attached to existing units without disrupting the architectural plan.

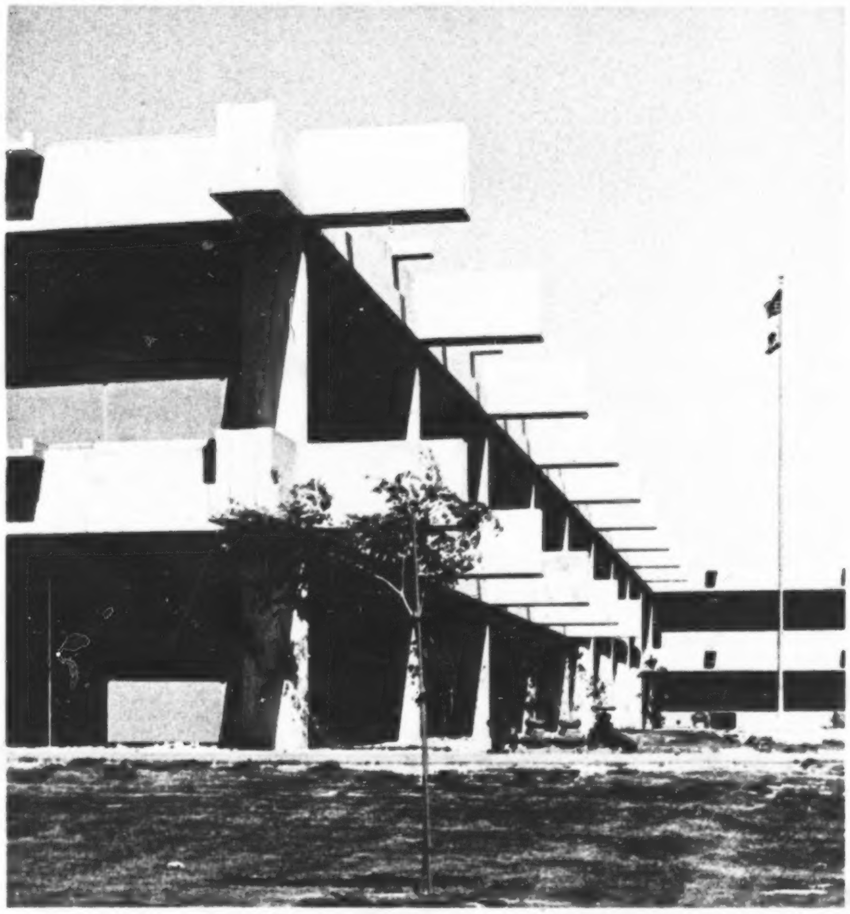
This campus can double or even triple in number of units as the years go by and educational needs of the burgeoning county expand. The architects label the plan the "continuous structure" concept. Coupled with this concept is a modular design whereby all kinds of spaces can be developed within a single area once it is free of bearing walls and fixed equipment. Load centers for mechanical and electrical utilities, all toilets, distribution centers for closed-circuit television, computer links, and future communications or electronic systems, are scattered throughout the campus, separate from instructional buildings, with each center serving 30,000 square feet of building area. This frees educational space of most utilities which make change difficult.

The modular plan is reflected in the continuous, exposed-concrete ceiling with its waffle patterns to which partitions can be attached. Concrete beams protrude from each of the two-level buildings, forming an architectural pattern as well as showing the "continuous structure" idea. Buildings are flat, two-level structures connected by a main street.

Programed learning is built into the instructional program, though it does not dominate the teaching-learning situation. The college makes wide use of latest audiovisual devices for both small and large-group instruction. As at Orange Coast, large-group instruction is provided in a "forum" wired with and programed for a complete array of audiovisual systems. Even the rostrum was "invented" for the special needs of the forum.

In regard to the flexibility of the campus, the architects note: "The spaces programed originally for 1,500 students have changed many times since the planning began—and always these changes have been made in response to new ideas, new needs, new concepts as the educational curriculum evolved. As testimony to the effectiveness and flexibility of the architectural system, these changes occurred not just during the early stages of design, but during the working drawings, through construction, up to the day of opening—and even since then. This relates not so much to the buildings themselves, the structural framework, as to the use of the spaces created: storerooms changed to offices, offices to seminar rooms, classrooms to laboratories. General-purpose rooms have been changed to highly sophisticated teaching facilities by installation of special teaching devices."

Community orientation of the college is reflected in one building which was constructed as a community service center. This facility is used by civic groups for meetings and other functions.



THINGS TO SEE AT GOLDEN WEST:

- Modular planning for flexibility in use of space
- "Continuous structure" concept of planning and its effect on the architecture
- Placement of utility "load centers" to contribute to flexibility
- Programed learning
- Widespread use of audiovisual aids, particularly in the forum
- Large-group instruction via the forum
- Well-planned student facilities, bookstore, and library
- The community service center.

CYPRESS JUNIOR COLLEGE

NORTH ORANGE COUNTY JUNIOR COLLEGE DISTRICT, CALIFORNIA

CYPRESS JUNIOR COLLEGE

This is an instant, relocatable, movable, interim campus.* ❧ *If you're lucky, it won't be moved while you are here.* ❧ *We put it up in seventy-four days.* ❧ *This is merely the beginning.

Instant Campus

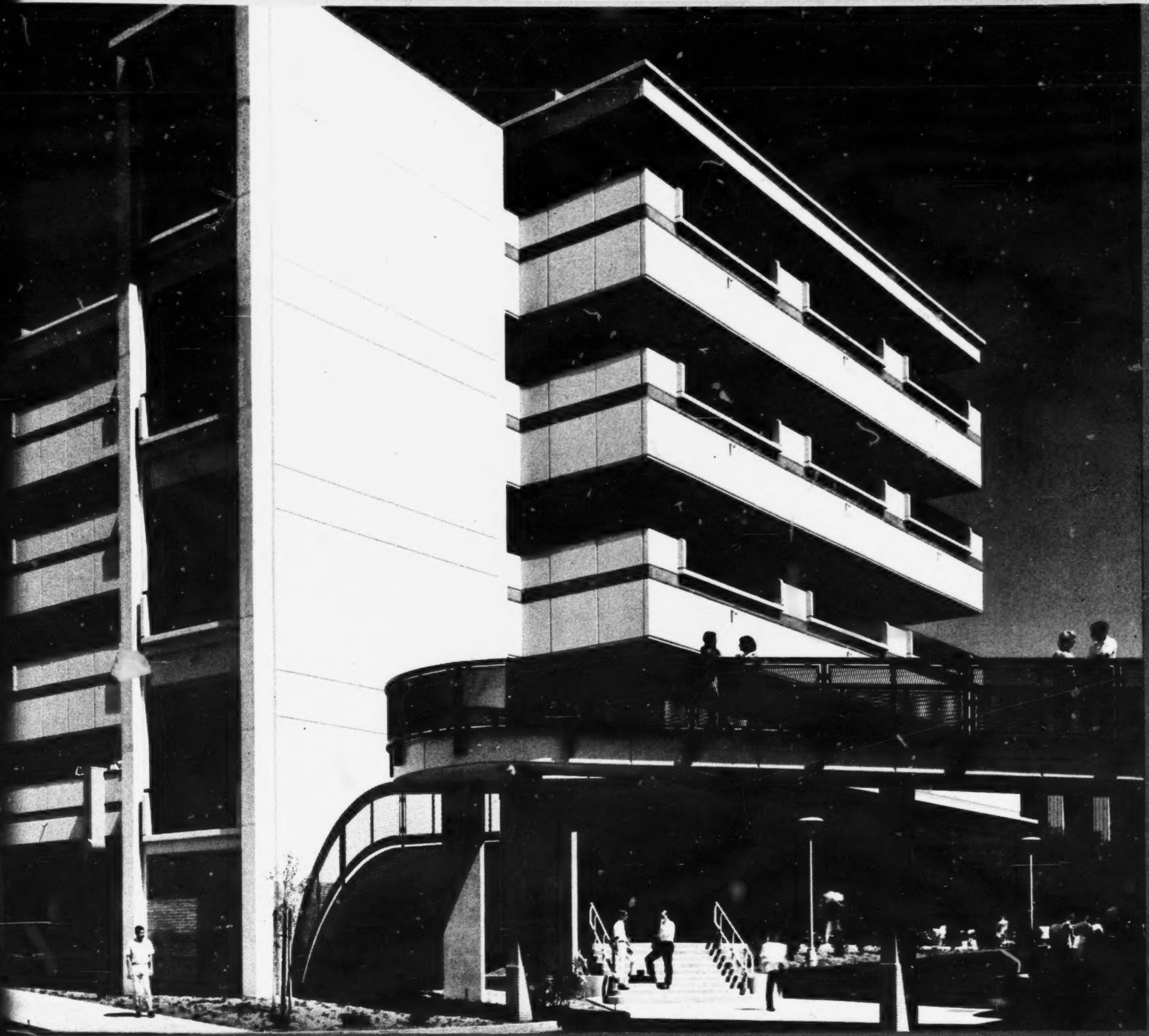
Cypress might be called the "miracle campus." In seventy-four days, 112 acres of unimproved land were converted into a finished campus including buildings, parking areas, drives, and walks. It was built in response to an immediate need for establishing a second campus in the North Orange County Junior College District, previously served by Fullerton Junior College alone.

There is, certainly, a temporary look about the college. Yet, all the ingredients for learning, teaching, and living are in evidence: buildings, laboratories, shrubbery, courtyards, library, athletic fields, student center, and the inevitable flag pole. The campus complex includes nineteen buildings which were factory-built and shipped to the site for assembly and erection before classes opened in the fall of 1966.

A permanent campus is being planned for Cypress. Meanwhile, students are enjoying life on one of the more unusual campuses in the country.

THINGS TO SEE AT CYPRESS:

- A temporary campus that is both attractive and extremely usable.

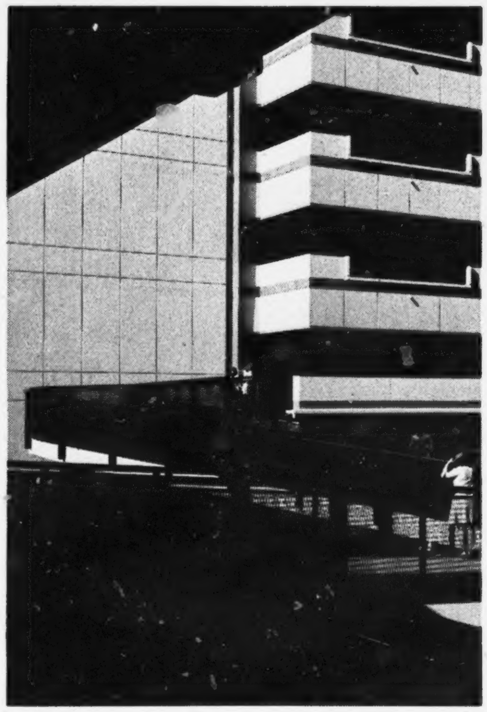


PASADENA CITY COLLEGE, CALIFORNIA

We had a race between enrollment growth and providing facilities to meet it. ❧ Dollars are, of course, of great significance. ❧ They are building a Chicago Circle piecemeal. ❧ You can play games on the roof. ❧ The geographic relationship of the college to the movie capital of the world is reflected in some of the beauty courses.

Games on the Roof

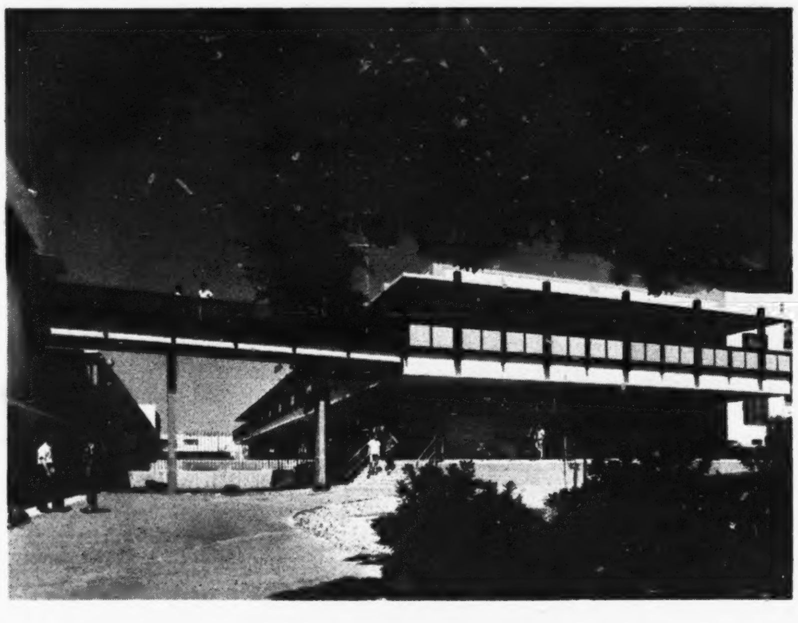
Pasadena City College is not a new institution, but its efforts to meet enrollment and program growth are reflected in several new units under construction or recently completed. The college dates back to 1924, and its educational program has earned it a reputation for quality plus comprehensiveness. You can find such occupational programs as cosmetology, instrumentation, data processing, electronics, dental assisting, and nursing alongside music, art, foreign language studies, and science.



Planning at Pasadena represents an effort to add to existing facilities in limited space, to provide for a blend of the old and the new. Thus, new structures are going up—rather than out. Major construction is found in an academic complex called the Catherine Robbins Building, the first component of which was completed in 1965. This air-conditioned building has central vertical circulation and a service core with only a single row of center columns, outside circulation balconies, and large, completely flexible interior areas with no permanent cross walls.

Other units now being built include those to house mathematics, foreign languages, studios for arts and crafts, textiles and apparel arts, data processing, and a 120-seat lecture hall. In addition, current plans call for an art gallery with adjoining display garden, and a studio-workroom complex for sculpture and ceramics.

For colleges planning expansion in congested areas, Pasadena provides some lessons. The college is moving pedestrian traffic to upper levels by installation of unenclosed walkways and stairways that connect the various buildings. Buildings are close together, but the cramped effect is relieved by attractive landscaping and small courts. Rooftops are used as small games spaces. Principal building material is concrete.



THINGS TO SEE AT PASADENA:

- Noteworthy approach to expansion on a limited site
- Use of elevated walkways to relieve pedestrian traffic congestion
- Well-equipped classrooms and laboratories for occupational programs
- Use of rooftops for games
- Compact spaces with perimeter circulation.

Workingman's College

LOS ANGELES TRADE-TECHNICAL COLLEGE, CALIFORNIA

This institution is known as the "workingman's college."

We teach what the community wants. ❧ *Most instructors carry as many as*

135 jobs in their pockets at all times. Placement is a key to the education program.

We can't train enough vending machine technicians. ❧ *Our motorcycle engine repair shop is pre-Hell's Angels.*

Los Angeles Trade-Technical College is one of seven two-year institutions in the city's junior college system. As its name suggests, the college concentrates on occupational education and training—offering scores of programs that lead to jobs after two years or less. The college, located on the edge of the Watts district of Los Angeles, makes a special effort to serve the total community.

Like Pasadena City College, Los Angeles Trade-Tech is cramped for space. Trade-Tech must design new facilities that will accommodate heavy machines, dry cleaning plants, automotive technology shops, and printing presses.

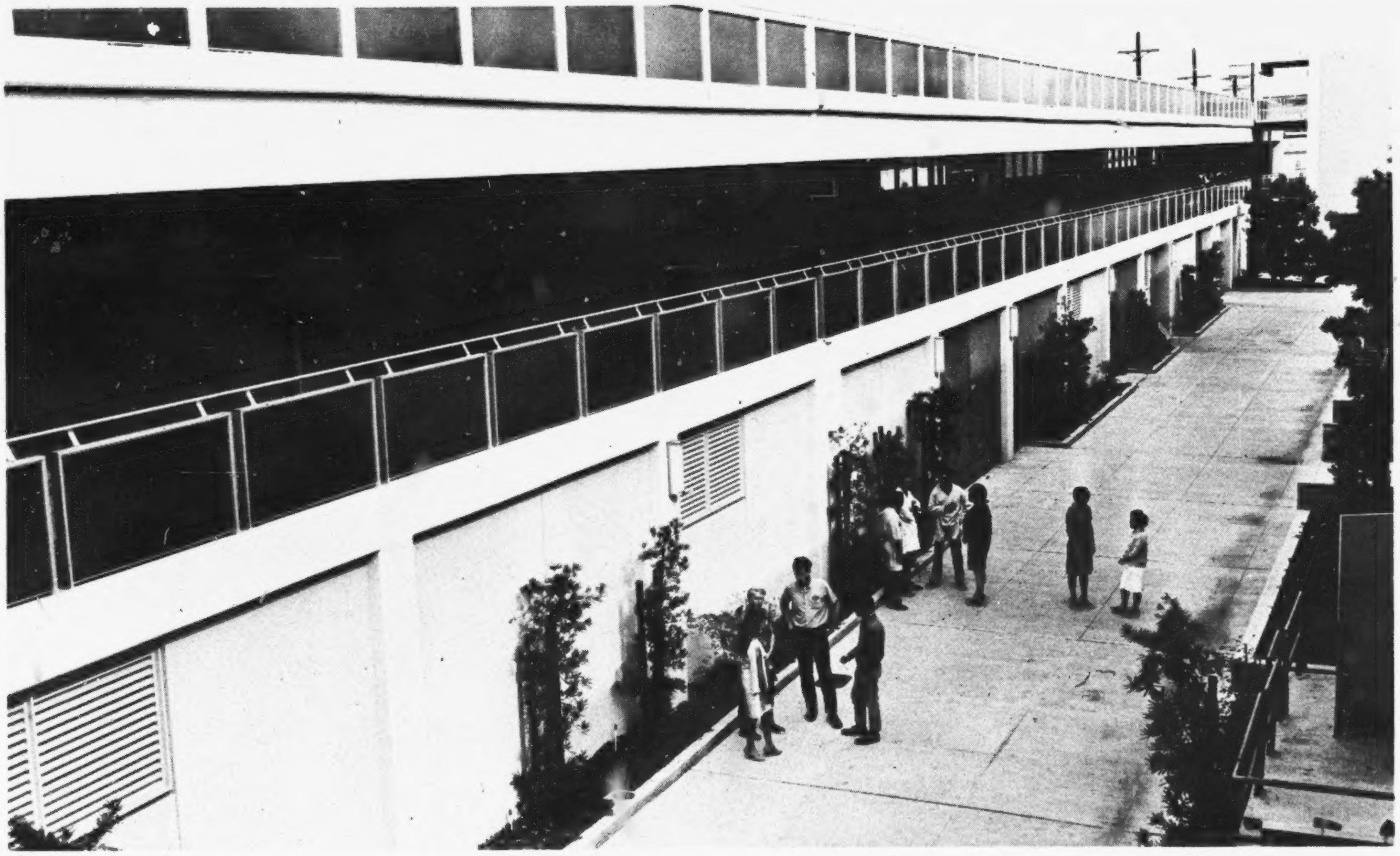
Metals, plastics, and automotive shops, for example, are located in the newest facility on the campus—a two-block-long, two-story building. This new structure has a 400-car parking lot atop it which partially solves another problem for the big city college.

Newer buildings have outside walkways to expedite pedestrian circulation and also to conserve space. What would have been hallway space inside the buildings is being used for equipment storage. The newer buildings do not have windows because of shop safety factors.

While the shapes and designs of the buildings tend to connote the "shop" atmosphere, a campus quality is achieved through a modern, tree-shaded mall, dotted with benches. The shops, incidentally, duplicate working conditions of well-lighted, airy industrial plants and business buildings.

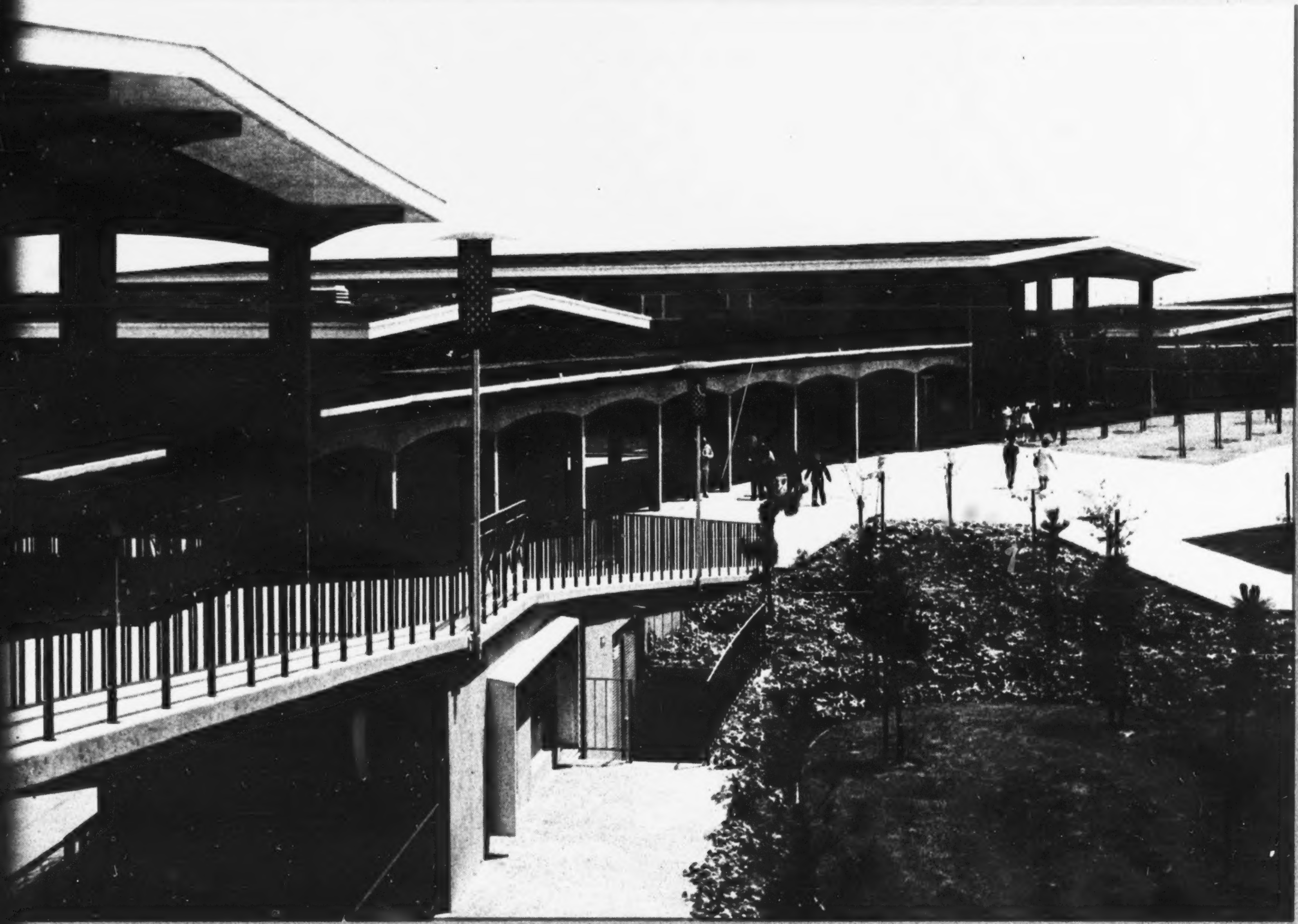
Another important program characteristic of the college is its use of trade advisory committees. Committees, made up of representatives of business and industry, are organized for each study area. Members give advice on curriculum planning and help to evaluate effectiveness of programs.

The master plan for the college calls for construction of a ten-story building next.



THINGS TO SEE AT LOS ANGELES TRADE-TECH:

- $3.5 million worth of shop equipment
- A vast array of occupational education activities and training
- Arrangement of a parking lot atop a new building
- Open-air walkways on newer buildings for perimeter circulation
- Use of the core areas of the newer buildings for storage.



CHABOT COLLEGE, CALIFORNIA

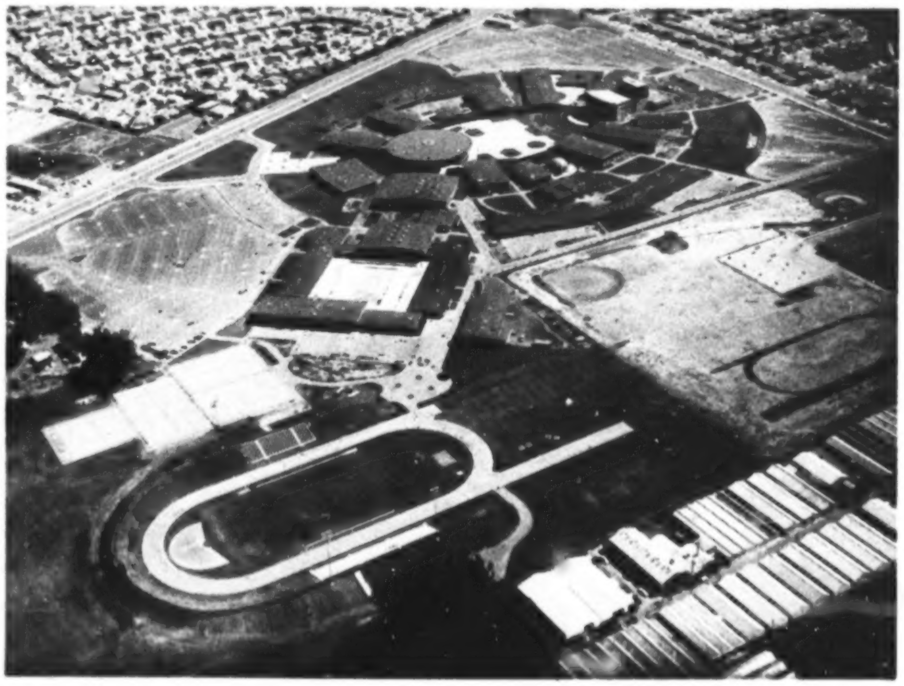
It looks like a wagon train getting ready for an Indian attack. How can you tell if the videotapes produced by your faculty members are any good? How do you tell if a faculty member is any good? ❧ One of the few places in the country where planning has met growth. ❧ The public got a lot for its money. ❧ Faculty had a lot to do with the design for space on this campus. ❧ This campus has not sacrificed function to design.

Opened in 1965, Chabot College's new campus serves parts of two counties in the San Francisco Bay area. Like all other public junior colleges in California, Chabot offers a comprehensive program that includes occupational education, transfer courses of study, and continuing education for adults. The campus is programed and constructed to serve 5,000 full-time day students, with master-planned capacity for 6,500 full-time day students. Up to 10,000 evening students can be accommodated.

The college was planned to take advantage of "new learning techniques, to facilitate the development of experimental programs, and to be adaptable to changes brought about by the new technology." Thus, there is wide use of audiovisual equipment, of programed learning devices, and television. Much of the equipment and facilities to expedite this kind of learning is contained in the circular library and educational media center, which is the hub of the campus.

Buildings are grouped around a large oval open space, architecturally described as the grand court, with the library as the focal point. Covered walks connect the buildings. Independent study areas have been provided in the buildings.

Students can dial into thirty-eight taped programs from their study carrels in the library, and that number can be increased as the need arises. Audiovisual aids are developed and used by faculty. Facilities to accommodate educational television programs at the college include a studio and control area for distribution of closed-circuit, live, and video-taped instructional offerings. The campus is constructed with conduits to carry television into each instructional space from the control room in the educational media center.



Technical-vocational facilities include a technology building, business data processing center, engineering-electronics building, business education and medical-dental building. The humanities area features an auditorium with 1,500 seats, an experimental little theater with flexible, upholstered seating, which can be arranged in four different ways.

Lecture spaces are of different capacities—up to 160 students in the academic areas. Faculty office buildings also contain seminar rooms which are divisible for groups of six to ten.

In addition to providing ample space for independent study, both in the media center and in other buildings, the student receives additional attention through the student center. The building contains dining, lounge, student government, bookstore, and student personnel facilities. The student center is connected at the second level to the library.

There are thirty buildings on the campus. Many instructional spaces are divided by folding partitions which open to create double-sized rooms. Special project rooms are included in facilities for chemistry, biological science, mathematics, electronics, automotive technology, and business education.

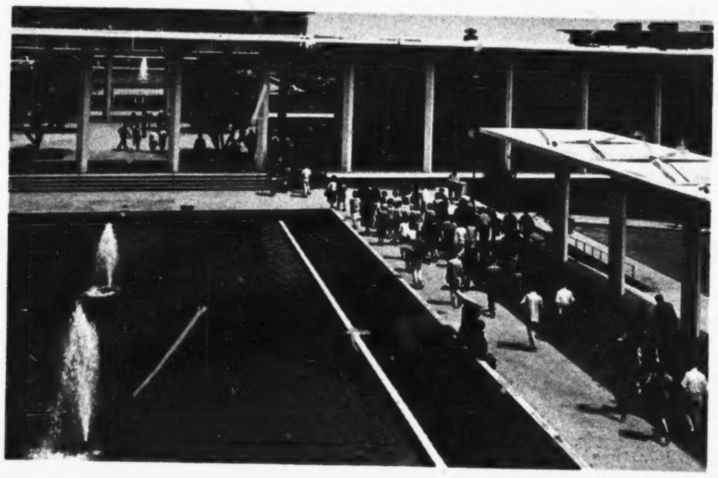
In addition to the formal educational program, the college serves its community in other ways: by making the auditorium available for meetings and other functions; use of the college planetarium by elementary schools and adult groups; an olympic-size swimming pool for swimming meets.

THINGS TO SEE AT CHABOT:

- Unusual central oval arrangement of buildings in campus plan
- Emphasis on programed learning and audiovisual aids to supplement instruction
- Community services facilities
- Educational media center design and use; "open-door" philosophy
- Flexibility in arrangement of spaces
- Provision for independent study throughout the campus
- Television facilities
- Relationship of function to design.

COLLEGE OF SAN MATEO, CALIFORNIA

This campus has a clean, stately look. ◆ I am proud of my college. From below, it looks like an Acropolis. ◆ One of the state's oldest colleges—with one of the newest campuses. ◆ Our goal is to provide sufficient junior college facilities for this district for the rest of the century. ◆ I wouldn't go anywhere else to college. ◆ The college got me started.



The Stately Look

The College of San Mateo was established in 1922, making it one of the oldest in California. It also serves a portion of the San Francisco Bay area. Opened in 1963, the new campus is part of a planned three-campus complex. Some 8,000 day students, plus 12,000 evening college students, are currently enrolled and many more persons in the San Mateo area are served through television and community education programs.

The program of the college is comprehensive, with a lower-division transfer program, a full range of occupational education courses, an evening college program for adults, community education, and community service activities. Community education includes short courses, forums, lectures, concerts, planetarium programs, and field trips. Community services include recreation and civic center meetings. In addition, the college houses the county historical museum.

The college is one of two junior colleges in the country (the other also is located in California) which maintain their own open-circuit television stations. In additon to cultural and informational offerings, the San Mateo station conducts a College of the Air.

Located in a hilly section, the college overlooks the north San Francisco Bay area. Original contours of the site were changed by grading to provide plateau areas for the major buildings, together with a series of east-facing terraces for physical education and community recreation fields and courts.

The architecture can best be described as stately, dignified, clean. The campus plan places chief educational structures along a north-south axis provided by the main pedestrian mall. A second mall, running east and west, connects the fine arts center with the library. Twenty-eight buildings form the campus complex, many of them built around central courtyards that provide additional usable space and shelter.

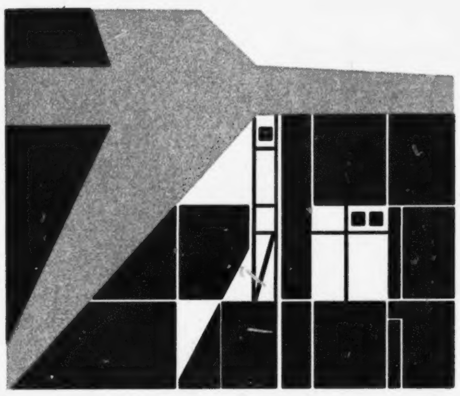
San Mateo is a spacious campus. There is no sense of congestion here. Buildings are constructed of thin-shell concrete forms, which suggest traditional collegiate dignity. Pierced-masonry sun screens for the library are among features which give distinction to campus focal-point areas. Roof forms, making use of hyperbolic paraboloids and folded-plate design, add to the distinctiveness of the architecture. Variety is also achieved by fountains, rising from tranquil pools, and by colonnaded shelters.

Among major units are these: the large student center; the gymnasiums, the larger of which is also used as an auditorium; the science center with central lecture rooms, two laboratory wings, and a planetarium; an academic center housing modern data processing equipment; vocational arts and technical centers; and the engineering and electronics center.

All programs, whether transfer, terminal, or community service, may use the television and audiovisual facilities of the college, which are centered in the library. Both closed-circuit and open-circuit TV capabilities are fully developed, so that each classroom and laboratory can be served by programs from the instructional materials center.

THINGS TO SEE AT SAN MATEO:

- Architectural unity of the campus design
- Good sites and orientation for buildings on a spectacular hilltop
- Open and closed-circuit television capabilities
- Data processing center
- Planetarium and science center
- Spacious student center
- County historical museum on campus
- Physical education facilities for community as well as college use.



PARTICIPANTS 1967 AIRBORNE TOUR

BLOOM COMMUNITY COLLEGE
Richard W. Hostrop, *President*
Bloom Community College
10th Street & Dixie Highway
Chicago Heights, Illinois 60411

Henry Nicolai, *Board Member*
104 Interocean Avenue
South Chicago Heights, Illinois

Wilmont Vickrey, *Architect*
Perkins & Will Partnership
309 West Jackson Boulevard
Chicago, Illinois 60606

Bruce Enselman, *Administrative Assistant*
Bloom Community College
10th Street & Dixie Highway
Chicago Heights, Illinois

BOROUGH OF MANHATTAN COMMUNITY COLLEGE
Murray H. Block, *President*
Borough of Manhattan Community College
134 West 51st Street
New York, New York 10020

**George Brown, *Board Member*
Brown, Guenther, Battaglia & Galvin
221 West 57th Street
New York, New York 10019

**Seymour Hyman, *Vice-Chancellor*
The City University of New York
535 East 80th Street
New York, New York 10021

CHICAGO CITY COLLEGE

Turner H. Trimble, *Director of Planning and Development*
Chicago City College
64 East Lake Street
Chicago, Illinois 60601

Ernest N. Rodbro, *Director of Buildings and Grounds*
Chicago City College
64 East Lake Street
Chicago, Illinois 60601

*Robert W. Carington, *Architect*
Fridstein & Fitch
351 East Ohio Street
Chicago, Illinois

**Marvin Fitch, *Architect*
Fridstein & Fitch
351 East Ohio Street
Chicago, Illinois

COMMUNITY COLLEGE OF ALLEGHENY COUNTY

Benjamin G. Davis, *Vice-President of the East Campus*
Community College of Allegheny County
Moss Side Boulevard
Monroeville, Pennsylvania 15146

COMMUNITY COLLEGE OF PHILADELPHIA

Allen T. Bonnell, *President*
Community College of Philadelphia
34 South 11th Street
Philadelphia, Pennsylvania 19102

*Roland Gallimore, *Architect*
Geddes, Brecher, Qualls, Cunningham
2101 Pine Street
Philadelphia, Pennsylvania

**Henry W. Jones, *Board Member*
Atlantic Richfield Company
260 South Broad Street
Philadelphia, Pennsylvania 19101

DALLAS COUNTY JUNIOR COLLEGE DISTRICT

Bill J. Priest, *Chancellor*
Dallas County Junior College District
Main & Lamar
Dallas, Texas 75202

Mrs. Margaret McDermott, *Board Member*
4701 Drexel
Dallas, Texas

Enslie Oglesby, *Architect*
2906 North Fitzhugh
Dallas, Texas 75204

ESSEX COUNTY COLLEGE

Robert H. McCabe, *President*
Essex County College
45 Branford Place
Newark, New Jersey 07102

William Twichell, *Board Member*
90 Washington Street
East Orange, New Jersey

Howard Horii, *Architect*
Frank Grad & Sons
11 Commerce Street
Newark, New Jersey 07102

FLORIDA JUNIOR COLLEGE AT JACKSONVILLE

A. Perkins Marquess, *Director of Physical Plant Facilities*
Florida Junior College
1450 Flagler Avenue
Jacksonville, Florida 32207

Richard Veenstra, *Architect*
Willis & Veenstra
411 East Monroe Street
Jacksonville, Florida 32202

*Andy Ferendino, *Architect*
Pancoast, Ferendino, Grafton
2575 South Bayshore Drive
Miami, Florida 33133

**Hilario Candela, *Architect*
Pancoast, Ferendino, Grafton
2575 South Bayshore Drive
Miami, Florida 33133

FREMONT-NEWARK COMMUNITY COLLEGE DISTRICT

*Stephen Epler, *Superintendent*
Fremont-Newark Community College District
5920 Thornton Avenue
Newark, California 94560

John Costello, *Board Member*
650 Washington Boulevard
Fremont, California

**James W. Duke, *Vice-President*
Fremont-Newark Community College District
5920 Thornton Avenue
Newark, California 94560

*Douglas Merrill, *Architect*
Skidmore, Owings & Merrill
1 Bush Street
San Francisco, California

**Walter Costa, *Architect*
Skidmore, Owings & Merrill
1 Bush Street
San Francisco, California

---

* First week only
** Second week only

**Bernard Arnold, *Architect*
Edward, Durrell, Stone & Associates
505 Park Avenue
New York, New York

VALENCIA JUNIOR COLLEGE
Albert T. Craig, *President*
Valencia Junior College
P. O. Box 3028
Orlando, Florida

Dean Engstrom, *Board Member*
Route 1—Box 42 C
Winter Garden, Florida

James R. Barnes, *Architect*
Apartment #600
5600 Silver Star Road
Orlando, Florida

WAUBONSEE COMMUNITY COLLEGE
James H. Nelson, *President*
Waubonsee Community College
424 South River Street
Aurora, Illinois 60507

Dale R. Von Ohlen, *Board Member*
415 Grand Avenue
Aurora, Illinois

James Hughes, *Architect*
Caudill, Rowlett, Scott
3636 Richmond Avenue
Houston, Texas 77027

CHRONICLE OF HIGHER EDUCATION
James Brann
Chronicle of Higher Education
3301 North Charles Street
Baltimore, Maryland

AMERICAN SCHOOL & UNIVERSITY
*Miss Georgette Manla
American School & University
547 Stuyvesant Avenue
Rutherford, New Jersey 07070

CHANGING TIMES
Sidney Sulkin
Changing Times
1729 H Street, N.W.
Washington, D.C. 20007

AMERICAN ASSOCIATION OF JUNIOR COLLEGES
1315 Sixteenth Street, N.W.
Washington, D.C. 20036

Bob H. Reed, *Director of Facilities Information*

William Harper, *Director of Public Relations*

Barbara Thoelke, *Secretary to Bob H. Reed*

ILLINOIS CENTRAL COLLEGE
Kenneth Edwards, *President*
Illinois Central College
Jefferson Building
Peoria, Illinois 61602

Robert Gorham, *Board Member*
Commercial Bank
Peoria, Illinois

PERALTA JUNIOR COLLEGE DISTRICT
John W. Dunn, *Superintendent*
Peralta Junior College District
300 Grand Avenue
Oakland, California 94610

Mrs. Margaret Hayes, *Board Member*
319 Mountain Avenue
Piedmont, California 94611

John Finn, Jr., *Facilities Planner*
Peralta Junior College District
300 Grand Avenue
Oakland, California 94610

PORTLAND COMMUNITY COLLEGE
Amo De Bernardis, *President*
Portland Community College
049 Southwest Porter Street
Portland, Oregon 97201

Kenneth Underdahl, *Board Member*
01673 Southwest Radcliffe
Portland, Oregon 97219

Otto Ritter, *Architect*
2386 Northwest Hoyt
Portland, Oregon 97210

SEATTLE COMMUNITY COLLEGE
Ed K. Erickson, *President*
Seattle Community College
550 Mercer Street
Seattle, Washington 98109

Ralph H. Burkhard, *Architect*
2120 Southwest 152nd Street
Seattle, Washington

Ed Mahlum, *Architect*
2114 Thorndyke West
Seattle, Washington

SINCLAIR COMMUNITY COLLEGE
Marvin Knudson, *President*
Sinclair Community College
117 West Monument Avenue
Dayton, Ohio 45402

Barry Blacklidge, *Business Manager*
Sinclair Community College
117 West Monument Avenue
Dayton, Ohio 45402

*Stanley Torkelsen, *Architect*
Edward, Durrell, Stone & Associates
505 Park Avenue
New York, New York

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